PLAN FOR THE REZONING
OF
NEW YORK CITY

LOCAL RETAIL REQUIREMENTS

Technical Report No. 5
to
City Planning Commission

HARRISON, BALLARD & ALLEN
June, 1949

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LOCAL RETAIL REQUIREMENTS

TECHNICAL REPORT No. 5 of:

PLAN FOR THE REZONING OF NEW YORK CITY

City Planning Commission Contract with Harrison, Ballard & Allen,
Consultants, for Studies to Provide the Basis for a General Revision
of the New York City Zoning Resolution.

June, 1949

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SUMMARY

The research findings described in this report lead to the following conclusions, which, in turn, suggest the types of zoning districts for retailing and its combinations with commercial services and other business functions:

(1) Retail and commercial activities in the City comprise four general types which differ by location and character of development:

(a) Local Shops and Services.
(b) Local Commercial Centers (or Secondary Centers as they are refered to in this report).
(c) Major Commercial Centers.
(d) Central Business Districts.

(2) Present frontage in which retail and business uses are permitted is substantially in excess of the amount used for such purposes.

(3) The amount of retail frontage used in relation to population shows little likelihood of increasing.

(4) Retailing within the City is undergoing a dramatic decentralization. The Local and Major Commercial Centers are growing in relation both to Local Shopping and the Central Business District.

(5) Sales are concentrating within fewer stores with large-volumes, many of which are chain operated and most of which are located in Local and Major Shopping Centers.

(6) The automobile has come to play a very important role in bringing customers to outlying centers, and to a lesser extent, to centers in the more congested areas of the City.

(7) Front feet of local shopping per 1000/population differs widely among residential areas, and seems to vary with residential density and rental characteristics.

(8) The large retail chain store, which has become the anchor and mainstay of most retail centers, is no longer tied to its location through land ownership in fee. Retail leasing is predominant and provides a mobility which could have a drastic effect upon the City's assessment structure under the present zoning ordinance.

The aim of the zoning changes proposed in the light of the above conclusions is to:

(a) Serve the needs peculiar to each type of shopping activity.
(b) Minimize infringement upon residential areas by these activities.
(c) Protect and stabilize existing shopping locations to the benefit of the City and the merchant.
(d) Provide a measure of adaptability to the needs of the automobile.

With these aims in mind, six types of retail and commercial districts seem to result naturally.

1) Local Retail
2) Local Retail A
3) Commercial 1
4) Commercial 2
5) Commercial 3
6) Commercial 4

Local Retail

This type of district serves substantial local shopping facilities throughout the City. Roughly, 37 per cent of all present retail frontage falls under this category.

Local Retail districts can be designated as portions of residential districts in which certain specified retail and service uses are permitted up to a maximum depth of 150 feet from the front of the property. Off-street parking space is required in varying amounts, depending upon the adjacent residential district. The requirement is greatest in the areas of lowest population density, and no parking space is required in the highest density areas where stores and residences are very close together and land costs are prohibitive.

While the locational pattern of this district varies in accordance with the peculiar needs and habits of each residential area of the City, general standards of location based upon city-wide averages can be established. Maximum walking distance from home to the nearest Local Retail district might vary from 1,400 feet in the outlying lowest density areas of the City to only 400 feet in the most densely populated areas.

Local Retail A

This district is required to supplement Local Retail districts in areas of the City where "ribbon development", or continuous frontage of small neighborhood stores is strongly entrenched. This sort of retail development comprises roughly 27 per cent of total retail frontage in the City.

As in Local Retail, these districts can be designated portions of residential districts. In order to encourage and support the "clustering" characteristics of the former, the zoned depth of Local Retail districts can be held to 100 feet, and the maximum store size to 2,000 square feet. There need be no off-street parking requirement.

The locations of this district will be largely determined by the requirements of an individual area. For the most part it would be mapped along major streets between Local Retail districts where population densities can support the additional frontage.

Commercial 1

The increased retail and business activities leading to the development of Local Commercial Centers are intended to be served by the Commercial 1 district. At present there are approximately 100 locations within the City which would fall within this classification, according to studies made by the New York Journal-American.* However, in the mapping process, selection need not be confined to these locations, but instead can result from intensive study and evaluation of each area on its own merits.

One of the most critical retail zoning problems faced is that in connection with the Local Commercial Centers. To guarantee their future stability space must be provided to permit the intense retail activity in these locations to survive. Larger stores, theatres etc., with ample parking space to attract the automobile shopper are the mainstays. Off-street parking spaces larger than those for Local Retail districts will therefore be required. Furthermore, the zoned depth should be extended to a minimum of 200 feet in Commercial 1 districts.

Commercial 2

There are some fifteen retail and business locations in the City outside of the Central Business Districts which are larger and contain more varied types of uses than those found in Local Commercial Centers. These areas, known as Major Commercial Centers, include such locations as Fordham Road in the Bronx, and Jamaica in Queens, where many office buildings, large stores and theatres are concentrated.

Areas which fall into this category can be designated as Commercial 2, with permitted bulks and uses somewhat less restricted than in Commercial 1. Zoned depth should be a minimum of 200 feet, and, while it is doubtful if parking can be required, incentives designed to encourage its provision are desirable.

Commercial 3 and 4

Commercial 3 and 4 can serve the Central Business Districts in Manhattan and Brooklyn, with retailing being only one of many functions. The districts would differ mainly in that Commercial 4, designed for amusement areas such as Times Square, would serve a somewhat wider range of uses and permit large advertising signs and billboards.

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* See below Appendix "Major Shopping Centers".

This report presents the results of extensive research studies of the pattern of retailing in New York City conducted September through December, 1948. The studies included:

1. Examination of standards of land utilization and retail center design developed in research by others and currently practiced by developers.
2. Examination of patterns of commercial land utilization and zoning in other cities.
3. Analysis of retail sales statistics and geographic patterns of retailing in New York City as presented by the U. S. Census of Business of 1929, 1935 and 1939, and more recent marketing studies by the Consolidated Edison Company, The New York Journal-American, and The New York Daily News.
4. Analysis of "Existing Land Uses in the City of New York" as developed by the City Planning Commission in 1938; of sample areas from the 1948 land use maps prepared for The Plan for Rezoning; and of maps showing 1940 Population Density, Transit Lines, and Major Streets and Highways which were also prepared for The Plan for Rezoning.
5. Interviews with the real estate managers of chain stores covering the major lines of retailing.
6. Field studies including on-the-spot examination of many retail centers in the City and counts of stores in selected areas.

I.

SPACE UTILIZATION FOR LOCAL BUSINESS

A) Standards Recommended by Authorities

The provision of necessary commodities and services to consumers in residential areas is an integral function of community life meriting special consideration from the land use standpoint. Although this function absorbs only a small percentage of the City's available space it is important that this space is properly located and of sufficient size to assure adequate service to the community. In the past this problem has been solved by providing many times the amount of frontage needed with little attention to the unique space requirements of the various types of retailing and service functions. This has resulted in haphazard development of the land designated for these uses. This in turn has created an unharmonious relationship with the residential land, and has in many cases contributed to the blighting of the latter uses. Recognition of this has occasioned considerable research into the land requirements of local business by city planners and the developers of large-scale housing projects. Recommended allotments of land areas for local business have been developed by several authorities in both fields and deserve the serious consideration of all concerned with the problem in New York City.

The authorities consulted are motivated in their recommendations by either one or both of the following aims: (1) determination of the minimum amount of retail space which will give the consumer a maximum of convenience and create a mainimum of interference with other land uses; (2) limitation of space which will be most attractive to the merchant and therefore produce the maximum retail rental income.

Unfortunately, neither of these aims is entirely consistent with the problems faced in zoning. In zoning it is necessary to find that amount of land which will cause a minimum of interference with residential land and provide a maximum of convenience to the consumer. However, this should definitely not be the minimum amount of land which will provide this service, because such minimums, in effect, will cause land monopolies at certain locations and such monopolies would never be sustained by the courts. The application of these limitations must be kept in mind in considering the standards proposed in Table 1.

TABLE 1. LOCAL BUSINESS/POPULATION INDEXES - STUDIES OF RECOMMENDED STANDARDS

	LOCAL SHOPPING			REGIONAL CENTERS		
	Stores per	Acres per 1000 Pop.		Stores per	Acres per 1000 Pop.	
AUTHORITY	1000 Pop.	Net	Gross e/	1000 Pop.	Net	Gross e/
VILLANEUVA a/	4.2 - 4.4	.73 - .86	2.18 - 2.58			
LILLIBRIDGE b/	.8 - 1.3	.07 - .08	.14 - .16	.54	.05	.1
URBAN LAND INSTITUTE c/	3.3 - 6.0	1.0				
STEIN-BAUER d/	6.3					

a/ "Planning Neighborhood Centers", the National Committee on Housing, 1945.

b/ "Shopping Centers for Urban Development", Land Economics, May, 1948.

c/ "Community Builders Handbook", 1947, the Urban Land Institute.

d/ "Store Buildings and Neighborhood Shopping Centers", the Architectural Forum, February, 1934.

e/ Gross includes parking area.

Of the four reference in Table 1, only Villanueva was trying to arrive at a figure which would be in the interest of the public at large. He considered the problem in the abstract—without reference to a specific project or to any particular group's interest. The Stein-Bauer recommendations made in connection with Radburn in 1934 were in effect brought up to date by Lillibridge in his study of shopping centers for urban-redevelopment in Chicago in 1948. The Urban Land Institute figures were developed largely in the interests of the real estate developer. With the exception of Lillibridge all recommended standards apply to low-density outlying areas.

The basis of the standards developed by these authorities is known as the "purchasing power" method, which consists in brief of determining the amount of retail and service space required to serve the population by estimating the sales volume which the population in the area can produce with its purchasing power. Although the method used by all 4 is substantially the same, the recommended standards vary widely. For example, Villanueva recommends 10 times more net acreage per 1,000 people for Local Shopping than Lillibridge. The number of stores recommended for these areas ranges from .8 per 1,000 (Lillibridge) to 6.3 (Stein-Bauer). It is interesting that Lillibridge, who was computing retail space needs for densely populated areas recommended the lowest figures. In contrast to this the New York data clearly shows that the store per 1,000 ratio is higher in the more densely populated areas. Also, in the 2 neighborhoods Lillibridge studied, he provided more retail space in higher rental areas while New York studies indicate that more space is used for retailing in lower rental areas. These variations by density and rent are discussed below in Section I-C.

When the figures in Table 1 are compared with existing amounts of land in local business use in New York (Table 3) it is evident that Lillibridge's recommendations, which are the lowest, cannot be applied. The net land figures developed by Villanueva are more significant, and perhaps his gross figures would be applicable in the outlying areas of low population density.

B) Space Utilization for Business in Other Cities

Unfortunately, a breakdown of business land utilization by location within a city is available only for Los Angeles. However, the total amount of land in such use in the other cities mentioned in Table 2 ranges from 1.3 acres per 1,000 population to 4.1. New York City, as Table 3 indicates had only 1.44 acres per 1,000 population in business use in 1938, and therefore ranks low in comparison with the other cities. Much of the variation between cities is due to differences in the normal lot size, and particularly in the lot depths which vary according to average block size in the community. Frontage, therefore, is in some respects a more representative figure. Bartholomew's figure of 786 front feet per 1,000 for the 16 self-contained cities in 1940 is very close to the New York figure of 740.

TABLE 2. LOCAL BUSINESS/POPULATION INDEXES - STUDIES OF CONDITIONS IN OTHER CITIES

	TOTAL CITY COMMERCIAL AREA	
CITY a/	Acres per 1000 Population	Front Ft. per 1000 Pop.
MADISON, WISC.	4.1 (4.0 acres outside Central City area)	
ST. LOUIS	2.1	
MINNEAPOLIS	1.3	
PORTLAND, ORE.	2.8	
PROVIDENCE, R. I.	2.5	
DULUTH	3.0	
LITTLE ROCK	2.0	
Average for above cities	2.3	
Sixteen other cities	1.8	
Six satelite towns	1.3	
Bartholomew - 16 self-contained cities, 1940		786
LOS ANGELES b/	TOTAL 2.72	900
Local Shopping	1.19	
Secondary Centers	.92	
Major Centers	.46	
Central City Area	.15	

a/ L. Segoe, "Local Planning Administration", 1940; H. Bartholomew, "16 Self-Contained Cities", 1940.

b/ The Los Angeles Land Use Survey, 1940.

In Los Angeles a breakdown of the acreage by class of location was made by Bryant Hall in 1940. This is comparable to the estimates for New York given in Table 3. A comparison of the percentage breakdown of this space by location follows:

Class of Location	Los Angeles	New York
Local Shopping	44%	64%
Secondary Centers	34%	17%
Major Centers	17%	11%
Central City	5%	8%
TOTAL	100%	100%

The differences in these percentages seem consistent with the characteristics of the two cities. Los Angeles, the automobile city, has more of its shopping concentrated in outlying centers, while New York's central city shopping center serves a national and even worldwide market. It is likely that the percentage breakdown for New York slightly overstates the percent of business in the Secondary and Major centers, and consequently understates the Local Shopping figure. (The Consolidated Edison Market Survey of 1943, which was the source of these figures, gives the number of stores for each census tract by 6 general types. The stores in a census tract containing or bordering on a Secondary or Major center were allocated to that center in the tabulations. Since some tracts included blocks which were not actually a part of the center, a portion of the stores in these tracts are really local in nature. No separation was made because the proportions would vary in each case).

C) Space Utilization for Business in New York City

The breakdown of existing business use by location in New York City as given in Table 3 is derived from an application of the above percentage figures on store location to the estimated total city acreage and front foot data developed from the 1938 Land Use Survey. The total stores per 1,000 population figure is from the 1939 Census of Business.

The city-wide figures of 1.44 acres and 740 front feet of Business per 1,000 people are relatively comparable with those of the other cities in Table 2. These figures include areas with "properties improved with store, office, loft, warehouse, garage and miscellaneous commercial structures, as well as gasoline filling stations and parking lots".* However, since lofts, warehouses and garages are included, the total figure would be inaccurate and misleading for application by specific locations. To arrive at a reasonable figure for this purpose, one-half of the area and frontage in purely Business uses has been deducted from the total. This results in figures of 1.06 acres and 540 front feet per 1,000 persons, a more reasonable basis for comparing Local Shopping space in New York with the standards recommended in Table 1. This rough deduction is necessary at present because of the limitations of the 1938 Land Use Survey. Completion of the 1948 survey will provide the data for a more accurate measure of land use.

It is apparent from Table 3 that New York City has a great number of small local stores, in fact more than twice the highest recommended figure in Table 1. However, since these stores are small in size, the acreage per 1,000 population in Local Shopping is somewhat less than the one acre per 1,000 recommended by the Urban Land Institute, although it closely approaches Villanueva's recommendations for net acreage. The latter therefore are more applicable. The Regional Center figures given by Lillibridge would correspond to the Secondary Center in New York. Here again Lillibridge is definitely below the minimum which could safely be provided by zoning.

1) Sample Residential Area Studies

Generalizations of shopping requirements on a city-wide basis are as limited in value as an average which does not give an indication of the disparity among its components. Present land utilization for Local Shopping varies widely throughout the City both in quantity and class of location. Studies in Section VI of this report treat this in detail. Generally speaking it has been found that the amount of business frontage increases where higher population densities and lower rents prevail. Table 4 presents the results of actual measurements of

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* "Existing Land Uses in the City of New York", 1938, page 37.

TABLE 3. STORES (1939), ACREAGE AND FRONTAGE (1938) OF COMMERCE PER 1,000 PERSONS FOR NEW YORK CITY BY CLASS OF LOCATION (ESTIMATED) [a]

CLASS OF LOCATION	PER 1,000 PERSONS Stores	 Acres	 Front Feet
TOTAL - 1938 Land Use Survey		1.44	740
Minus			
Estimated frontage and Area of Business in Lofts, Warehouses, etc. [b]		.38	200
TOTAL Retail Shopping		1.06	540
Local Shopping	13.8	.68	347
Secondary Centers	3.6	.18	90
Major Centers	2.4	.12	60
Central City Shopping	1.7	.08	43
TOTAL (adjusted)	21.5	1.06	540

[a] Based on estimates from: U. S. Census of Population 1940, Land Use Survey, 1938, U. S. Census of Business 1939, Consolidated Edison Market Survey 1943, New York Journal-American Market Survey 1947.

[b] Area deducted from adjusted total is one-half of total acreage and frontage in purely business use. Approximately this amount is in such uses as lofts, warehouses, garages etc., which are not considered as appropriate uses in local business districts.

TABLE 4. FRONT FEET PER 1,000 PERSONS OF SHOPPING BY CLASS OF LOCATION IN FIVE NEW YORK RESIDENTIAL AREAS [a]

	Front Feet of Business per 1,000 Population				
	BROOKLYN				QUEENS
DISTRICT	Sunset Park	Bensonhurst	Gravesend	S. Greenfield	Whitestone
Local Shops	338	228	158	97	117
Secondary Centers	15	30	8	46	63
TOTAL	353	258	166	143	180
Density - Persons per Acre [b]	150	102	102	75	23
Median Monthly Rental 1940	$35	$42	$46	$52	$53

[a] Based on measurements from the 1948 Land Use Survey Maps prepared by Harrison, Ballard & Allen, and 1948 population estimates.

[b] In density calculations residential property acreage includes one-half street area.

local business frontage in 5 New York City residential areas as described by the New York Daily News marketing study. For example, in the Sunset Park area of Brooklyn, where the population density is approximately 150 persons per acre and rents average $35 per month there are approximately 353 front feet of commercial use per 1,000 persons. In the South Greenfield section of Brooklyn, where population density is only 75 persons per acre and rents average $50 per month there are only 143 front feet of commercial use per 1,000 people.

An additional phenomenon apparent from Table 4 is that a greater portion of the total shopping frontage lies in Secondary and Major centers in the lower density areas. The Whitestone area of Queens and South Greenfield in Brooklyn, for example, have one-third of their frontage in such centers, while in Bensonhurst almost 85 per cent of the Business frontage lies on Local Shopping streets.

When the 1948 land use survey is completed it will be possible to develop these ratios of population to frontage for all sectionsof the City. From these studies, far more accurate measurements of the shopping needs of each local residential area can then be obtained and standards for zoning directly related to actual conditions and trade practices in New York City can be set up.

2) Commercial Land Provisions in Large Projects

Although the provision of land for business in the large housing developments recently constructed in the City is largely motivated by the desire to achieve maximum commercial rents, it is important to examine these amounts in the light of the above data.

Parkchester, developed by the Metropolitan Life Insurance Company at White Plains Road and Tremont Avenue in the Bronx, comprises some 12,272 apartments housing 35,000 people. There are 5 Local Shopping centers and one Secondary center in this project. To some extent the latter serves an area outside the project. The total commercial frontage in the development is approximately 4,846 feet or 138 feet per 1,000 persons in Parkchester. Of this total, 1,667 front feet or 48 feet per 1,000 people are in 5 Local centers. An additional 3,179 feet, or 90 feet per thousand people, comprises the Secondary center.

The population density in the project is 272 persons per acre. It would seem that this amount of housing might support more shopping frontage than has been provided. An indication of this can be found in the streets bordering the project which are enjoying fairly intensive use of merchants who could or would not lease space in the project itself. However, a fine line cannot be drawn between the amount of frontage which is adequate or inadequate. One supermarket for example can sell $3 million worth of food a year in 10,000 square feet of floor space. Thirty stores with 3 000 square feet a piece could all share this gross business and still make a profit. As stated above the provision of a minimum amount of space is in the interests of profitable property management. The public's shopping habits can support more than this minimum. It is clear that zoning cannot provide less space than is now being used ~~in~~ a residential community. The private developer, however, can do this at his own risk.

Stuyvesant Town and Peter Cooper Village, also developments of the Metropolitan have a density of approximately 375 persons per acre. The total commercial frontage for both projects is 1,405 front feet or approximately 36 front feet per 1,000 persons. This will be supplemented to some extent by existing shopping across First Avenue. Yet, it is surprisingly low in the light of the company's Parkchester experience. Time will tell if such a low amount can satisfy minimum needs.

The Fresh Meadows development of the New York Life Insurance Company at Horace Harding Boulevard and 188th Street in Queens comprises some 3,000 dwelling units housing 11,000 people at only 82 persons per acre. This project is developed with 2 small shopping centers and one large one having a combined total of 2,088 front feet of commercial space or 190 per 1,000 people. The gross area of this space including parking facilities is 17 acres or 1.5 acres per 1,000 persons. Parking is provided for 1,000 cars in spaces aggregating 58 per cent of the total retail floor space. The commercial floor space provisions of this project are close to the recommended standards and not far below the present amount of shopping space in the nearby Whitestone area of Queens.

II.

LAND USED IN RELATION TO LAND ZONED

Thus far we have discussed land utilization for commerce in terms of proposed standards, conditions in New York and other cities, and the amount used in local communities, both established and new. We now have some idea of the demand for land of this type. This demand differs in different residential areas and is an absolute only in terms of sales volume. The amount of land required to merchandise sufficient goods to meet this volume can vary tremendously, depending upon whether the sales operation is at maximum efficiency such as that practiced by chain stores, or the average efficiency found in most small stores.

Another factor affecting the amount of land used for local business, is the amount provided. The mere availability of land for business use acts to increase the amount in such use. In many cases stores are built which never show a profit to their proprietors even though they pay off as a real estate venture. This is the result of countless small entrepreneurs, optimists who start a business in such a location hoping to make a go of it, only to find after a year or two that they have lost their savings and must step aside and let the next optimist go through the same process. This matter of store turnover and trends is taken up in more detail in Section III-C, and is mentioned here only as one of the effects of overzoning.

The amount of land presently zoned for business bears little relation to the amount used, and even less to any proposed standards. Only 42 per cent of the 25,325 acres zoned as Business Districts in the City were actually used for business purposes in 1938. Land in business use totaled 10,743 acres, or 1.44 acres per 1,000 people, as against 3.40 acres per 1,000 in Business District zones and, in addition, some 24,078 acres in Unrestricted Districts which were used in part for commercial purposes. To put it differently, the amount of land in Business Districts alone in 1938 could have served a population of 17,602,000 on the basis of the active use of 10,743 acres by the 7,455,000 people in the City at that time. If we add the factor of permissible bulk to these use districts, we reach an astronomical figure.

TABLE 5. COMPARISON BETWEEN LAND ZONED AND USED IN NEW YORK CITY, 1938

(Net Usable Land Only) a/

	NEW YORK CITY TOTAL	
LAND ZONED, 1938	Acres	Acres per 1,000 People
Residential Districts	45,871	6.15
Retail and Restricted Retail	576	.08
Business Districts	24,749	3.32
Unrestricted Districts	24,078	3.23
Undetermined Districts	12,130	1.63
TOTAL USABLE AREA	107,404	14.41
LAND USE CATEGORIES, 1938		
Residential only b/	33,612	4.51
Residential and Business	5,108	.68
Business Only	5,635	.76
Industrial	9,183	1.23
Public & Private Institutions	5,948	.80
Vacant Lots and Blocks	47,918	6.43
TOTAL USABLE AREA	107,404	14.41

a/ 107,404 out of 185,997 acres in the City. Based on data in "Existing Land Uses in the City of New York, 1938.

b/ Does not include Residential uses with business frontage.

What in effect was done in the 1916 ordinance was to permit development throughout the City of the characteristic intensity found in mid-town Manhattan. This condition has reached its extreme in some of the outlying areas of the City. Table 6 shows that Whitestone, for example, has over 11 times as much frontage zoned for business than was used for such purpose in 1948! Of the areas studied, Gravesend in Brooklyn presents a similar, but somewhat less serious problem. There the amount zoned is only 4 times the amount used. In the other areas the ratio is slightly more than twice the amount of land used to that zoned.

TABLE 6. LAND USED VERSUS LAND ZONED FOR BUSINESS IN FIVE SAMPLE NEW YORK RESIDENTIAL AREAS, 1948 *

RESIDENTIAL DISTRICT	FRONT FEET OF BUSINESS PER 1,000 POPULATION	
	LAND USED	LAND ZONED
Sunset Park, Brooklyn	353	711
Bensonhurst, Brooklyn	258	625
Gravesend, Brooklyn	166	733
South Greenfield, Brooklyn	143	349
Whitestone, Queens	180	2,008

* Based on measurements from the 1948 Land Use Survey Maps prepared by Harrison, Ballard & Allen, and 1948 population estimates.

It is proper of course to zone for sufficient business space to serve the anticipated population of an area. However, the anticipated population estimate should be reasonable. In many cases overzoning for business has had the effect of sterilizing land. Frontage on major streets is held vacant for many years in the expectation of a business use which never has materialized and in all probability may never develop. In the older areas of the City we see such "passed by" frontage either still vacant or utilized for cheaper uses (like filling stations, junk yards, repair shops, etc.,) which uses hasten the deterioration of the surrounding residential area. Excessive land zoned for business is a luxury the community can no longer continue to afford if the land use problem is to be attacked in a realistic way.

III.

THE GENERAL NATURE OF RETAILING IN NEW YORK CITY

A) By Class of Merchandise

In 1939, according to the U. S. Census of Business there were 159,992 retail and service stores in operation in the City. This amount to a total of 21.47 stores per 1,000 people. A breakdown of these stores by class of merchandise is given in Table 7. Approximately three-fourths were retail stores, the others falling into the various service categories such as barber shops, cleaning and dyeing establishments, shoe, auto, radio repair shops, etc. Over one-third of all retail stores fall into the food category, while only 11 per cent are in the apparel business. Other major store categories are eating and drinking places and drug stores.

TABLE 7. CHARACTERISTICS OF RETAIL AND SERVICE STORES BY CLASS OF MERCHANDISE - NEW YORK CITY 1939 [a]

	Number of Stores	Stores per 1000 Population	Annual Sales Per Capita	Annual Sales Per Store
Food Group	47,955	6.43	$115.98	$ 18,000
Department Stores	43	.006	39.70	6,882,000
Variety Stores	922	.1	8.40	70,000
Apparel Stores	12,630	1.7	64.00	38,000
Furniture & Home Furnishings	3,413	.5	17.70	39,000
Radio Stores	480	.06	3.50	54,000
Automotive Group	1,166	.2	21.70	138,000
Filling Stations	2,706	.4	8.60	24,000
Household Appl., Hardware, etc.	2,834	.4	6.60	17,000
Eating Places	11,438	1.5	45.80	30,000
Drinking Places	5,201	.7	16.00	23,000
Drug Stores	4,008	.5	11.90	22,000
Liquer (Package) Stores	911	.1	7.00	58,000
Books, Stationery, Cigars	5,736	.8	11.00	14,000
Other Retail	15,776	2.06	50,37	24,000
TOTAL RETAIL	115,219	15.46	428.25	27,700
Service Stores [b]	44,773	6.01	26.56	4,400
TOTAL	159,992	21.47	454.81	21,200

[a] U. S. Census of Business, 1939.

[b] Includes the following stores: barber shops, beauty parlors, cleaning and dyeing establishments, hand laundries, photography studios, shoe repair, auto repair, parking lots, radio repair, upholsterers, watch and jewelry repair and funeral parlors.

The amount of money spent in these stores is roughly comparable to the number of stores in each category. Food stores take in one-fourth of the money spent in all categories. Apparel stores rank second with almost 15 per cent, and eating places third with 10 per cent. The department stores of course do a total business out of proportion to their number, and the high unit cost items like automobiles and furniture stores also take in a greater proportion of the funds spent than their relative number would indicate.

The average store in New York in 1939 has annual gross sales of $21,200. Unfortunately there is no data available which permits grouping of stores by sales volume, with the exception of grocery stores about which data can be found in Table 12. The overwhelming majority of stores had annual sales of less than $20,000 in 1939. In contrast, the 41 department stores in the City did an average annual business of $6,882,000. As Section III-C indicates, the majority of the retail sales volume is being done by a smaller and smaller number of stores located in the various shopping centers throughout the City.

B) By Class of Location

Analysis of the locational pattern of retailing in the City indicates that it is apportioned in approximately the following manner:

Scattered stores in residential areas	27%
Stores in substantial Local Shopping streets	37%
Stores in Secondary Shopping centers	17%
Stores in Major Shopping centers	11%
Stores in Manhattan Central City Shopping areas	8%
TOTAL	100%

The above percentages are based on analysis of sample surveys made by Consolidated Edison in 1943 and the New York Journal-American in 1947, and not upon a census of all stores. By "scattered" stores is meant those local shops situated at points where the commercial development is rather sporadic and not very substantial. It is felt by the Journal-American that, although these stores loom rather large in number, they account for less than 10 per cent of the retail sales in the City. In making routing lists for sales managers, these stores are generally omitted to save the salesmen's time. Of a sample of 48,000 stores surveyed by the New York Journal-American in 1947, some 13,000 were found to be in scattered locations. A breakdown of these stores by class of merchandise is found in Table 9.

TABLE 8. ESTIMATED BREAKDOWN OF "LOCAL" SHOPPING BETWEEN STORES ON MAPPED SHOPPING STREETS OR CENTERS AND SCATTERED STORES - NEW YORK CITY TOTAL *

	Per Cent of all Stores	Stores per 1,000 Population
Total Local Stores	64.3%	13.8
Stores on Mapped Shopping Streets	37.2%	8.0
Scattered Stores	27.1%	5.8
Stores in Secondary, Major and Central City	35.7%	7.7
TOTAL - all stores	100.0%	21.5

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* Based on data assembled by the New York Journal-American, 1947.

TABLE 9. SCATTERED STORES (NOT ON SHOPPING STREETS OR CENTERS) BY CLASS OF MERCHANDISE, 1947 *

Class of Merchandise	Total Stores	Scattered Stores	Scattered Stores as a Per cent of all stores
Groceries	13,778	5,111	40.0%
Meat Markets	5,235	1,303	24.9
Drugs	3,551	806	22.7
Shoes	1,813	154	8.5
Men's Wear	2,191	209	9.5
Women's Wear	2,954	242	8.2
Variety (5 & 10¢)	1,138	120	10.5
Paint	1,869	334	17.9
Electrical Appliances	3,687	635	17.2
Hardware	1,678	260	15.5
Jewelry	1,172	96	8.2
Stationery	8,366	3,315	39.6
Furniture	702	79	11.3
TOTAL	48,134	13,064	27.1%

* Based on data assembled by the New York Journal-American, 1947.

The Local Shopping streets form the location for the greatest single group of stores in the City. These vary in size and character from 5 to 10 stores on a street corner to ribbon developments several miles in length. Although it is not possible to describe these streets by the class of merchandise of the stores found in them, they consist largely of food and service stores, and only seldom is a chain clothing or variety store at such a location. These latter types are found largely in the Secondary and Major centers.

The Secondary centers (there are 96 in the City) are becoming the primary outlet points for modern retailing. Characteristic locations are: 72nd Street and Broadway and 145th Street and Broadway in Manhattan; East 169th Street and the Boston Road in the Bronx; 86th Street from Fourth Avenue to Fort Hamilton Parkway in the Bensonhurst section of Brooklyn; and at 103rd Street and Roosevelt Avenue in Queens. These centers vary in size but generally are less than 5 blocks in length with more than 100 stores of all types. In almost all cases there is a variety or 10¢ to $1.00 store and a good representation of chain clothing stores. Occasionally there is also a chain jewelry, furniture or radio and appliance store. In addition, independent operators in all these fields and in many others will always be found in these centers.

Outside of the city-wide shopping areas in Manhattan and downtown Brooklyn there are some 14 Major shopping centers in the City. Outstanding are the Jamaica and Flushing centers in Queens, Fordham Road in the Bronx, Kings Highway at Ocean Avenue in Brooklyn, and 125th Street between 8th and Lenox

Avenues in Manhattan. These centers are huge, and do an ever growing volume of business. Some have as many as 3 department stores and hundreds of other stores of all sorts, and practically any consumer item is available. The pedestrian and automobile congestion on a Saturday almost equals that of midtown Manhattan. 1/

An analysis of stores by class of location (see Table 10) indicates that two-thirds of all stores are found in Local Shopping areas. Three-fourths of all food and drug stores, almost 60 per cent of all eating places, home furnishings and general merchandise stores but only one-third of the apparel stores are in these locations. The remainder are distributed in varying proportions among the Major and Secondary shopping centers. For instance, over 50 per cent of all apparel stores are in these centers. This is based on the Consolidated Edison marketing study, which is limited to the 6 general categories of store for which maps were prepared. The stores covered account for approximately 35 per cent of all retail stores in the City.

TABLE 10. PERCENTAGE OF STORES BY CLASS OF LOCATION FOR 6 MERCHANDISE GROUPS

Type of Center	Total 6 Groups	Food	Eating Places	Drug Stores	Apparel Stores	Home Furn.	Genl. Merch.
Local	64.3%	76.5%	57.8%	73.2%	33.0%	55.4%	58.0%
Secondary	16.6	14.5	9.8	14.3	27.3	17.3	20.0
Major	11.2	7.4	8.9	6.5	23.1	15.7	15.9
Central City	7.9	1.6	23.5	6.0	16.6	11.6	6.0
TOTAL 1944	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

There is little available information on the relative volume of retail sales by class of location. Studies of this nature are contemplated by the 1949 Census of Business and these would provide retail sales data for residential districts somewhat similar to those recommended by the New York Daily News. The only available study on decentralization of retail sales within an urban area, made for Chicago in 1935 by the U. S. Census, found that 74 per cent of the total retail sales in that city were made outside of the "Loop". The high proportion of sales in the outlying areas was brought out by the fact that "in 17 per cent of the total frontage actually used for business, 44 per cent of the total retail business outside of the central business district was conducted. 2/

1/ See the Appendix for a complete list of the locations of all Major and Secondary centers in the City.

2/ Harold Mayer, "Patterns and Recent Trends in Chicago's Outlying Business Centers", Journal of Land Economics, February, 1942.

C) By Size of Operation and Ownership

An increasing proportion of retail sales are handled by an ever smaller number of large volume chain and independent stores. Average annual sales per store in chains and large independents increased substantially from 1929 to 1939 compared with average sales per store for all stores during this period. Table 11 gives these figures on the basis of actual sales and also as an index of 100 for the average sales per store for all stores each year. A separate figure is given for multi-store independents since this represents stores of substantial size even though they are not considered chain operations.

TABLE 11. INDEXES OF RETAIL SALES PER STORE FOR SELECTED CLASSES OF MERCHANDISE, 1929 AND 1939 *

	N. Y. C. TOTAL 1929		N. Y. C. TOTAL 1939	
STORE GROUP	Sales	Index	Sales	Index
All Stores	$ 41,467	100.0	$ 27,709	100.0
Single-store independents	30,956	74.7	20,431	73.7
Multi-store independents	86,928	209.6	91,471	330.1
Chain Stores	107,503	259.2	92,136	332.5
Groceries (no meats)				
All Stores	25,095	100.0	18,662	100.0
Independents	18,135	72.3	15,293	81.9
Chains	47,238	188.2	39,734	212.9
Combination				
All Stores	48,904	100.0	70,408	100.0
Independents	50,226	102.7	27,724	39.4
Chains	47,992	98.1	153,599	218.2
Men's & Boy's Clothing				
All Stores	54,810	100.0	45,304	100.0
Independents	40,721	74.3	28,181	62.2
Chains	106,081	193.5	174,141	384.4
Women's Ready-to-wear				
All Stores	75,778	100.0	66,467	100.0
Independents	57,475	75.8	50,940	76.6
Chains	209,810	276.9	308,270	463.8
Shoes				
All Stores	49,020	100.0	35,885	100.0
Independents	27,816	56.7	16,738	46.6
Chains	98,766	201.5	78,858	219.8
Furniture				
All Stores	88,109	100.0	76,753	100.0
Independents	69,876	79.3	43,402	56.5
Chains	366,850	416.4	570,945	743.9

* U. S. Census of Business 1939.

The increase for selected classes of merchandise varies from 1929 to 1939. The greatest gains were made in the combination meat and grocery sales. The sales of the independents and chains were comparable in 1929. During the decade the sales of the independents underwent a dramatic decrease while the chains doubled their sales, in comparison with average sales for all such stores. Similar trends were apparent in the men's and boy's clothing stores and women's ready-to-wear. This tendency to concentrate sales in large units occurred despite the fact that the number of independent stores increased from 86 per cent of the total in 1929 to 92 per cent in 1939, and the sales of all independent stores increased from 71.5 per cent of total retail sales in 1929 to 74.3 per cent in 1939. The number of chain stores decreased because chains were concentrating their operation into fewer stores. The number of large independent stores which were established during this period increased the total sales of independent stores.

By 1939 there was an unmistakable trend toward the concentration of sales in fewer stores for all classes of merchandise. This trend had only begun at that date and is more marked today. A study of postwar patterns of the chain and independent store sales published in January, 1949 states; " Though retail sales, both for chain and independent stores have expanded greatly in the postwar period, the increase has been more marked for chains in most lines of trade. . . The independent stores on the whole thus have not been keeping up with chains in the postwar period in spite of the considerable increase in number of independent stores that occurred in every line of trade''. 1/ From 1945 to 1948 chain store sales in 13 selected lines of trade increased 69 per cent while the total increase for all retail stores was only 51 per cent. 2/

Grocery store sales, for which data were available in 1946 by size of unit, are an outstanding example of sales concentration (see Table 12.) The concentration of grocery sales is dramatic when one realizes that 14 per cent of all stores do 62 per cent of all the grocery business in the City. This is due largely to the growth of the supermarket. In 1932 there were 300 supermarkets in the United States with total sales of $150 million. In 1940 there were 7,980 such stores (of which 2,679 were operated by chains) with combined sales of $2 billion. The A & P alone had 1,540 markets in 1940.

As a result of the increasing congestion in the Central Retail centers of the large cities the chain stores began moving their operations into Major and Secondary shopping centers thereby taking retail business from (1) the local merchants and (2) the Central Shopping area. The large mail order houses (such as Sears Roebuck and Montgomery Ward) lead this trend. They were quickly followed by the apparel chains. As a result such inroads were made on the central department stores that in turn they were forced to follow suit. The result has been a complete change in the pattern of retailing. The central area merchant and the neighborhood store are losing out to the decentralized Major and Secondary shopping centers, a change still underway.

1/ Survey of Current Business, January 1949.

2/ ibid. Selected lines include grocery and combination, eating and drinking, drug, department, dry goods, men's clothing, women's apparel, shoe, automotive parts, hardware, building materials, furniture, and variety stores.

TABLE 12. WEEKLY RETAIL GROCERY SALES BY SIZE OF OUTLET IN NEW YORK CITY, 1946 *

	Average Weekly Sales	No. of Stores	Per cent of Total Stores	Per cent of Total Sales
Chain Stores				
Super Markets	$13,005	280	2.0	22.3
Others	4,250	915	6.7	23.8
TOTAL CHAINS	$ 6,305	1,195	8.7%	46.1%
Independent Stores				
Super Markets	9,330	125	.9	7.1
"A" Stores	2,384	613	4.4	9.0
"B" Stores	615	7,865	57.1	29.6
"C" Stores	125	2,019	14.7	1.5
Delicatessen	560	1,955	14.2	6.7
TOTAL INDEPENDENT	$ 700	12,577	91.3%	53.9%
TOTAL ALL STORES	$ 1,185	13,772	100.0%	100.0%

* Research and Marketing Department, the New York Journal-American.

This trend was well evident by 1939. In that year, retail sales made in Manhattan accounted for 30 per cent of the total sales in the New York Region while in 1929 they had accounted for 36 per cent. It was not only a matter of Manhattan losing sales to communities outside of New York City but of the other boroughs gaining at Manhattan's expense. In 1929, 56 per cent of all retail sales in the City were made in Manhattan, while in 1939 this figure had dropped to 50 per cent. 1/

Chain stores obviously prefer a location on a shopping street or shopping center. Table 13 shows 81 per cent of all chain groceries and only 58 per cent of the independents in these locations. Over 90 per cent of all chain stores in the other classes of merchandise are located on shopping streets and in shopping centers.

Public markets and itinerant peddlers in New York City have little importance in the whole shopping picture. At present there are 8 public enclosed markets in the City with total available space for 1,678 stands. Open air markets at 10 locations throughout the City provide space for 381 stands. There are some 1,662 itinerant peddlers licensed in the City in addition to the above. The public markets, which once played a very important part in retail marketing in the City, are minor at present and have been steadily decreasing in size and importance during the past few decades. 2/

1/ U. S. Census of Business, 1929 and 1939.

2/ Henry C. Kurdelski, Chief Inspector, New York City Department of Markets.

TABLE 13. STORES LOCATED ON SHOPPING STREETS AND SHOPPING CENTERS BY OWNERSHIP FOR SEVERAL CLASSES OF MERCHANDISE, 1947 *

Class of Merchandise	Number of Stores	Per cent of stores on shopping streets & centers	Per cent of stores outside of shopping streets & centers
Groceries			
Total Stores	13,778	60.0%	40.0%
Chain Stores	1,201	81.4	18.6
Independents-Total	12,577	58.0	42.0
(Gross Weekly Sales)			
Over $1,500	738	84.3	15.7
Under $1,500	11,839	56.3	43.7
Drug Stores	3,551	77.3	22.7
Chains	148	91.2	8.8
Independents	3,403	76.7	23.3
Shoe Stores	1,813	91.5	8.5
Chains	422	97.9	2.1
Independents	1,391	89.6	10.4
Men's Wear	2,191	90.5	9.5
Chains	168	96.4	3.6
Independents	2,023	90.0	10.0
Women's Wear	2,954	91.8	8.2
Chains	100	95.0	5.0
Independents	2,854	91.7	8.3
Variety Stores	1,138	89.5	10.5
Chains	200	98.0	2.0
Independents	938	87.6	12.4
Electrical Appliances	3,687	82.8	17.2
Chains	114	94.7	5.3
Independents	3,573	82.4	17.6

* Distribution of Retail Outlets - Grocery, the New York Journal-American, 1947.

D) Trends in Number of Stores

1) Cyclical Trends

The number of retail and service stores in New York City is not constant, but to a great extent varies with economic conditions. According to Table 7, there were 159,992 stores in active use in the City in 1939. There were in addition an estimated 5,900 vacant stores at that time. According to a survey by Consolidated Edison in 1943 there were some 38,594 stores vacant in New York City. This was largely due to the influence of the war which created a shortage of consumer goods and made retail operations very difficult.

TABLE 14. TOTAL STORES IN NEW YORK CITY *

Stores	U. S. Census, 1939	Consolidated Edison, 1943
Total Retail	115,219	89,460
Total Service	44,773	37,838
Vacant	5,900 (est.)	38,594
TOTAL	165,892	165,892

* U. S. Census of Business 1939, and the Consolidated Edison Survey of the New York Market, 1943.

During a period of prosperity retail enterprises are established at an increasing rate. When a recession sets in the number of new stores created is far outnumbered by the firms going out of business. In 1942 and 1943 the difficulty was not caused by a recession, of course, but by the difficulty retail enterprises had in finding merchandise. Although data on store mortality dates for New York City are not available, some studies have been made on a national level which throw some light on the New York situation. Of 100 retail establishments operating in the United States in 1929, by 1939 only 51 survived. The survival ratio for different type stores showed the following variations: *

Store Type	Surviving stores in 1939 per 100 existing in 1929
Drug Stores	65.8
Variety Stores	54.4
Grocery Stores	48.9
Shoe Stores	40.8
Eating Places	33.0
Radio Stores	22.1

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* "How Long do Retail and Wholesale Establishments Tend to Survive?", Economic Business Series # 54, United States Department of Commerce and Dunn and Bradstreet, Inc.

The condition in the early 1940's is shown clearly in the following national figures from 1940 to 1945 on discontinued retail business. 1/

Number of Discontinued Businesses (in thousands)

1940	1941	1942	1943	1944	1945
106.4	116.8	228.8	150.5	53.1	54.4

Discontinuance Rates
(Number of discontinued businesses per 1,000 firms in operation at the beginning of each year)

1940	1941	1942	1943	1944	1945
67	73	144	105	40	40

	New Businesses	Discontinued Businesses	Net Gain
1946	+17.5%	-4.1%	+13.4%
1947	+ 8.5%	-4.3%	+ 4.2%

The years 1946 and 1947 brought a net increase in the number of retail businesses. The figures above show the percentage of the new retail businesses created in those years to the number existing at the beginning of the year; the percentage of failures; and the net gain. 2/

In 1947 only half as many new retail enterprises were created as in 1946; the number of failures remained fairly constant and the net increase therefore was much less than in the preceding year.

From the above, it is clear that there is no constant rate for the creation of new businesses, or for mortality in the retail field. Half of the retail trade firms in existence in 1929 were out of business in 1939. From 1940 to 1945, a total of 469 out of 1,000 retail firms in existence during this period went out of business. These figures indicate a chronic instability in retailing.

1/ ibid.

2/ Melville J. Ulmer, "Industrial Patterns of the Business Population", Survey of Current Business, May 1948.

2) Long Range Trends

Is there any consistent trend in the number of stores in existence despite cyclical economic changes? The Census provides retail store data for 1929, 1935, and 1939. Table 15 gives retail stores and stores per 1,000 for the major classes of merchandise during this period. The number of retail stores actually increased from 100,755 in 1929 to 115,219 in 1939. However, when drinking places and package liquor stores are omitted, the number of other retail stores per 1,000 population only went up slightly, from 14.54 to 16.64 per 1,000. Not all store groups increased: food, eating places, drugs, cigars and automotive showed numerical increases, drug stores per 1,000 population fell off and general merchandise remained constant.

TABLE 15. RETAIL STORES PER 1000 POPULATION FOR 1929, 1935 AND 1939 BY CLASS OF MERCHANDISE *

	1929	Stores per 1000	1935	Stores per 1000	1939	Stores per 1000
Food Stores	42,054	6.07	52,161	7.25	47,955	6.43
General Merchandise	3,560	.51	3,973	.55	3,771	.51
Apparel	14,065	2.03	12,643	1.76	12,630	1.69
Home Furn., radio, hardware	8,407	1.21	7,277	1.01	6,729	.90
Eating Places	8,450	1.22	10,709	1.49	11,438	1.53
Drugs	3,960	.57	4,137	.58	4,008	.54
Cigars	3,471	.50	2,418	.35	4,456	.60
Automotive & Filling Station	3,283	.47	3,408	.47	3,872	.52
Other Retail	13,505	1.95	11,653	1.62	14,248	1.91
TOTAL	100,755	14.54	108,379	15.07	109,107	14.64
Drinking places & Package stores			5,165	.72	6,112	.82
TOTAL	100,755	14.54	113,544	15.79	115,219	15.46

* U. S. Census 1929, 1935, 1939.

E) Shifts in the Regional Retail Structure

Between 1929 and 1939 Manhattan dropped 6 per cent in its share of retail sales in the New York Region, while its proportion of the population declined only one percent. Table 16 compares the percentage of population and retail sales for various sections of the New York Region from 1929 to 1939. Outside of Manhattan, Brooklyn is the only borough which lost a higher percentage of sales than population. The Bronx showed a gain in sales which was 3 times its gain in population, and Queens gained almost twice as much in sales as in population. The Bronx, Brooklyn and Queens as a whole went up .9 per cent of the total population and 2 per cent of the total sales made in the Region.

TABLE 16. SHIFT IN NEW YORK REGIONAL RETAIL STRUCTURE 1929-1939 [a]

Area	1929 Population Persons in thousands	1929 Population %	1939 Population Persons in thousands	1939 Population %	% of Total Regional Sales 1929	% of Total Regional Sales 1939	1929-1939 Chang in % of Regional Total [d] Pop	1929-1939 Chang in % of Regional Total [d] Sales
Total N. Y. Region	11,629	100.0	12,501	100.0	100.0	100.0	-	-
Bronx, Bklyn., Queens	4,905	42.2	5,391	43.1	27.6	29.6	.9	2.0
Inner Suburban Ring [b]	3,479	29.9	3,691	29.5	25.5	28.2	- .5	2.7
Outer Suburban Ring [c]	1,378	11.8	1,529	12.2	10.4	12.0	.4	1.6
Bronx	1,265	10.9	1,395	11.2	5.6	6.6	.3	1.0
Brooklyn	2,560	22.0	2,698	21.6	15.7	14.7	- .4	-1.0
Queens	1,079	9.3	1,298	10.4	6.3	8.3	1.1	2.0
Manhattan	1,867	16.1	1,890	15.1	36.5	30.3	-1.0	-6.2

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[a] U. S. Census of Business 1929 and 1939.

[b] Includes counties of Nassau, Richmond, Westchester, Bergen, Essex, Hudson, Passaic and Union.

[c] Includes counties of Morris, Middlesex, Monmouth, Somerset, Fairfield, Dutchess, Orange, Rockland and Suffolk.

[d] Increase unless otherwise indicated.

Table 17 - COMPARISON BETWEEN LAND ZONED AND LAND USED, 1938 a/

	N.Y.C. TOTAL		MANHATTAN		BRONX		BROOKLYN		QUEENS		RICHMOND	
NET USABLE LAND	Acres	Per 1000	Acres	Per 1000	Acres	Per 1000	Acres	Per 1000	Acres	Per 1000	Acres	Per 1000
LAND ZONED d/												
Residential	45,871	6.15	1,738	.92	6,382	4.57	9,689	3.59	19,168	14.77	8,894	51.11
Retail & Restricted Retail	576	.077	561	.30	1	-	12	-	2	-	-	-
Business	24,749	3.32	2,195	1.16	2,855	2.05	5,314	1.97	6,480	4.99	7,905	45.43
Unrestricted	24,078	3.23	1,984	1.05	3,859	2.77	4,434	1.65	6,058	4.67	7,743	44.50
Undetermined	12,130	1.63	-	-	71	.05	5,326	1.97	6,634	5.11	99	.57
TOTAL Usable Area	107,404	14.41	6,478	3.43	13,168	9.44	24,775	9.18	38,342	29.54	24,641	141.61
LAND USE e/												
Residential only b/	33,612	4.51	1,882	1.00	4,129	2.96	10,471	3.88	13,391	10.31	3,739	21.49
Residential & Business c/	5,108	.68	1,442	.76	445	.32	2,439	.90	675	.52	107	.61
Business only	5,635	.76	1,550	.82	847	.61	1,650	.61	1,322	1.02	266	1.53
Industrial	9,183	1.23	646	.34	1,383	.99	2,798	1.04	3,100	2.39	1,256	7.22
Pub. & Private Inst.	5,948	.80	684	.36	1,176	.84	1,299	.48	1,294	1.00	1,495	8.59
Vacant Lots & Blocks	47,918	6.43	274	.15	5,188	3.72	6,118	2.27	18,560	14.30	17,778	102.17
TOTAL Usable Area	107,444	14.41	6,478	3.43	13,168	9.44	24,775	9.18	38,342	29.54	24,641	141.61
TOTAL Business Frontage f/		750		924		544		700		771		1099

a/ Net usable land only. (107,404 out of 185,997 acres in the City) Based on data in "Existing Land Uses in the City of New York", 1938.
b/ Does not include Residential Uses with business frontage. (See c/below).
c/ Taken from estimates in Table 16 p. 46 of "Existing Land Uses".
d/ " " " " " 2-3 p. IV-4 " " "
e/ " " " " " 2-4 p. IV-3 " " "
f/ " " " " " BF-1 p. 38 " " "

IV.

VARIATIONS IN THE GENERAL NATURE OF RETAILING AMONG BOROUGHS

A) Land Zoned and Land Used 1938

As stated in Section II, the amount of land in Business and Retail zones is far in excess of the amount used for such purposes. Table 17 shows this to be true for all boroughs with the exception of Manhattan. In the latter, slightly more acreage is in use than is zoned in Business Districts. The figures for these comparisons were computed by combining the Retail and Restricted Retail and Business Districts to derive the zoned acreage, and the Residential and Business and Business Only uses to arrive at used acreage. No allowance is made for retail use in areas zoned as Unrestricted. On the basis of this comparison the Bronx has 2.2 times more land zoned for Business than is in use, Brooklyn 1.3, Queens 3.2, and Richmond, which is exceedingly overzoned, 21.2. In the Bronx and Brooklyn, which are considered residential boroughs, there is only twice as much land per thousand people zoned for Residential Districts as for Business Districts.

B) Acres, Frontage, and Stores per Thousand Persons 1939

Aside from the fact that Manhattan, as would be expected, has a great many more stores in relation to its population than the other boroughs, there is not much borough variation. Brooklyn ranks second to Manhattan, and Queens and the Bronx are roughly comparable.

TABLE 18. ACRES, FRONTAGE, AND STORES PER 1000 POPULATION BY BOROUGH NEW YORK CITY, 1939 *

	NYC Total	Man.	Bklyn.	Bronx	Queens	Rich'd.
Total Stores	159,992	56,244	53,480	24,142	22,847	3,270
Total Stores per 1000 population	21.46	29.8	19.8	17.3	17.6	18.8
Acres per 1000 population	1.44	1.58	1.52	.93	1.54	2.14
Frontage per 1000 population	750	924	700	544	771	1,099

* U. S. Census of Population, 1940; U. S. Census of Business, 1939; "Existing Land Uses in New York City", 1938.

Acreage per thousand persons in business use is roughly 1.5 for all boroughs with the exception of the Bronx which is very low, .93 and Richmond which is high, 2.14 (see Table 18). The Bronx also ranks lowest in the amount of business frontage in use per thousand persons. A breakdown of stores by class of merchandise for each borough again shows comparability. Table 19 indicates that Manhattan ranks far above the city-wide average for stores per thousand population. Second in rank is Brooklyn, and the other 3 boroughs are fairly comparable with each other. The Bronx, in spite of its low acreage figure is only slightly below Queens and Richmond in this respect. There are slight discrepancies among the boroughs in respect to the number of stores of various types. Brooklyn has more food, apparel, and general merchandise stores in relation to its population than any of the other boroughs; it also supports more stores than the Bronx, Queens, and Richmond. The drinking places and liquor stores rank highest in Richmond and Queens. Curiously, there are more than twice as many of such stores per thousand people in Richmond as in the Bronx or Brooklyn. As one would expect, the number of automotive stores and filling stations differ among the boroughs. The boroughs with a high automobile ownership, such as Queens and Richmond, abound in these uses, while Manhattan, of course, has very few.

TABLE 19. STORES PER 1000 POPULATION BY CLASS OF MERCHANDISE *

STORE GROUP	NYC Total	Man.	Bklyn.	Bronx	Queens	Rich'd.
Food Stores	6.43	6.5	7.0	6.4	5.3	5.8
Genl. Merchandise & Apparel	2.20	3.7	2.0	1.4	1.4	1.4
Home Furn., Radio & Hardware	.90	1.3	.9	.7	.9	.9
Eating Places	1.53	3.0	1.1	.8	1.2	1.4
Drinking Places & Package stores	.82	1.0	.6	.6	1.0	1.5
Drug Stores	.54	.6	.5	.5	.5	.5
Cigar Stores	.60	1.0	.5	.5	.4	.2
Automotive & Filling Stations	.52	.3	.4	.5	.9	1.3
Other Retail Stores	1.91	3.9	1.3	.8	1.3	1.9
TOTAL RETAIL STORES	15.45	21.3	14.3	12.2	12.9	14.9
Service Stores	6.01	8.5	5.5	5.1	4.7	3.9
TOTAL	21.46	29.8	19.8	17.3	17.6	18.8

* U. S. Census of Population, 1940; U. S. Census of Business, 1939.

C) Sales per Capita and Sales per Store by Class of Merchandise

Sales per capita among the boroughs vary with respect to the amount of purchasing power and the Major retail facilities. Table 20 shows that most food purchases are made locally and the figures for this group are similar for all boroughs. Queens, with its high average income, ranks close to Manhattan. Per capita sales for most other types of store, with the exception of automotive stores and filling stations are much higher in Manhattan. Queens generally ranks second to Manhattan with the exception of general apparel and merchandise in which it is surpassed by Brooklyn.

TABLE 20. PER CAPITA SALES - 1939 *

Store Group	NYC Total	Man.	Bklyn.	Bronx	Queens	Rich'd.
Food	$115.98	$125.90	$107.30	$113.00	$123.70	$108.60
General Merchandise & Apparel	116.10	316.70	57.90	36.30	43.00	26.20
Home Furn., Radio, Hardware	27.80	52.40	19.90	16.40	22.10	14.10
Eating and Drinking Places	61.80	146.12	31.20	25.30	46.00	34.30
Drugs	11.90	22.20	10.00	7.30	10.10	9.20
Cigars, Stationery, Books	11.00	26.40	5.10	5.00	5.80	3.60
Automotive & Filling Stations	30.30	33.90	24.80	21.00	43.70	47.30
Service Stores	26.56	51.97	18.64	19.06	17.33	11.38
Others	49.09	74.70	19.96	18.99	22.66	27.05
TOTAL - ALL GROUPS	$435.43	$850.29	$294.80	$262.85	$334.29	$281.73

* U. S. Census of Business, 1939.

Sales per store as given in Table 21 presents a picture similar to that described by the other criteria in the foregoing tables. In Manhattan they rank far above those in other boroughs for all classes of merchandise. For most classes of merchandise, Queens stores have annual sales which rank above the other outlying boroughs. Exceptions to this are department store sales which, of course, are higher in Brooklyn, and the automotive group with the Bronx sales per store greater than Brooklyn's.

TABLE 21. 1939 ANNUAL SALES PER STORE [a/]

(in thousands)

Business	NYC	Man.	Bklyn.	Bronx	Queens	Rich'd.
Food Group Total	$18	$19	$15	$18	$23	$19
Grocery	19	21	16	17	23	17
Combination	70	71	71	89	71	40
Dept. Stores	6,882	11,527	6,136	801	1,680	-
Variety Stores	70	145	38	46	70	54
Apparel Group	38	53	22	25	26	16
Furniture and Home Furn.	39	50	30	28	41	22
Radio	54	80	37	44	41	21
Automotive Group	138	238	12	95	13	122
Heating etc., Dealers	17	21	14	17	18	12
Eating Places	30	40	18	20	25	11
Drinking Places	23	30	20	21	20	14
Drug Stores	22	37	15	17	19	19
Liquor (Package)	58	80	41	47	44	27
Books, Stationery, Cigars	14	19	8	9	11	12
All Service [b/]	3	4	3	3	3	2

[a/] U. S. Census of Business, 1939.

[b/] Includes the following services: barber shops, beauty shops, cleaning and dyeing-pressing, hand-laundries, photog. studios, show repair, radio repair, upholst. and furn. repair, watch and jewelry repair.

D) Acres, Front Feet and Stores Per Thousand Population by Class of Location

In Table 22 the figures showing the locational pattern of retailing for each borough were derived largely from the Consolidated Edison Market Survey. Part A, Table 22 shows the variation among the boroughs in the number of stores in Local, Secondary, and Major centers. In the Bronx, Brooklyn, and Queens approximately two-thirds of all the stores are Local. The Bronx has a slightly higher proportion of Local stores than the other two boroughs. Of the 5 boroughs, Brooklyn has the largest proportion of its stores in Secondary centers, while Queens has the highest proportion in Major Centers. These borough ratios apply to front feet in Part B and to acres of commerce in Part C (Table 22).

TABLE 22.

A) ACRES OF COMMERCE PER 1000 POPULATION BY CLASS OF LOCATION [a]

	NYC	Man.	Bronx	Bklyn.	Queens	Rich'd.
Local	.93	.90	.65	1.04	1.02	[b]
Secondary	.24	.15	.17	.33	.31	
Major	.16	.17	.11	.15	.21	
Central City	.11	.36	-	-	-	
TOTAL	1.44	1.58	.93	1.52	1.54	2.14

B) FRONT FEET OF COMMERCE PER 1000 POPULATION BY CLASS OF LOCATION [a]

	NYC	Man.	Bronx	Bklyn.	Queens	Rich'd.
Local	482	524	378	481	510	[b]
Secondary	125	86	98	150	157	
Major	84	102	68	69	104	
Central City	59	212	-	-	-	
TOTAL	750	924	544	700	771	1,099

C) STORES PER 1000 POPULATION BY CLASS OF LOCATION [a]

	NYC	Man.	Bronx	Bklyn.	Queens	Rich'd.
Local	13.8	16.9	12.0	13.6	11.6	[b]
Secondary	3.6	2.8	3.1	4.2	3.6	
Major	2.4	3.3	2.2	2.0	2.4	
Central City	1.7	6.8	-	-	-	
TOTAL	21.5	29.8	17.3	19.8	17.6	18.8

[a] Based on estimates from: U. S. Census of Population, 1940; 1938 Land Use Survey for borough total acreage and footage; 1943 Consolidated Edison Survey for ratio by class of area; and the 1947 Journal-American location analysis.

[b] Richmond was omitted from the Consolidated Edison Survey which gave store breakdowns by location.

E) Trends in Number of Stores 1929-1939

The number of stores per thousand people in the City in 1939 was only slightly higher than in 1929. This is particularly apparent when liquor stores and drinking places are deducted from the total. Since there were none in existence in 1929 they account for a large percentage of the increment during the years 1929-1939. In Manhattan there was a slight decrease in the number of stores per 1,000 persons. In Brooklyn and Richmond there was a substantial decrease amounting to one-half a store per thousand people for Brooklyn, and one-and-a-half stores per thousand for Richmond. The Bronx and Queens showed a net gain, the former gaining over 2 stores per 1,000 persons, and the latter one-half a store. The gain in these 2 boroughs is due partly to a lag in the creation of retail facilities which were needed to catch up with the population gains of the previous decade.

TABLE 23. RETAIL STORES BY BOROUGH a/

	1929	Stores per 1000	1935	Stores per 1000	1939	Stores per 1000
Manhattan	37,463	20.16	40,750	21.69	40,092	21.21
Less Liquor b/	-	-	39,100	20.81	38,062	20.14
Brooklyn	36,502	14.26	37,179	14.14	38,748	14.36
Less Liquor	-	-	35,631	13.55	37,012	13.72
Bronx	12,212	9.65	17,094	12.85	17,088	12.25
Less Liquor	-	-	16,476	12.39	16,289	11.68
Queens	12,200	11.31	15,927	13.40	16,699	12.87
Less Liquor	-	-	14,822	12.47	15,417	11.88
Richmond	2,378	15.05	2,594	15.63	2,592	14.90
Less Liquor	-	-	2,350	14.16	2,327	13.37
TOTAL CITY	100,755	14.54	113,544	15.79	115,219	15.46
Less Liquor	-	-	108,379	15.07	109,107	14.64

a/ U. S. Census 1929, 1935, 1939.

b/ Liquor stores and drinking places.

V.

MAJOR AND SECONDARY SHOPPING CENTERS

A) Environmental Characteristics

Outside of Manhattan's regional and city-wide shopping centers there are 16 Major and 96 Secondary shopping centers in the City, according to the Journal-American surveys. These are distributed as follows:

Borough	Major Centers	Secondary Centers
Manhattan	4	16
The Bronx	3	21
Brooklyn	5	24
Queens	4	31
Richmond	-	4
TOTAL CITY	16	96

These classifications are a simplification in that there are acknowledged differences among centers. Not all Secondary centers are of one size and character. There are wide variations in Major centers. However, study of all these centers reveals certain common characteristics which have been tabulated by borough in Tables 24 and 25.

1) Length of Center

Almost 60 per cent of the Major centers in the City have intensive retail development with a total street length of over 2,500 feet. On the other hand, almost three-fourths of all Secondary centers in the City are less than 1,500 feet in length. The median street length for Secondary centers is approximately 1,375 feet. In the Bronx these centers are more compact than in the other boroughs, while Brooklyn's centers tend to be the longest.

2) Rapid Transit

Contrary to common belief a rapid transit stop is not an essential location factor for all shopping centers. While 94 per cent of all Major centers have at least one station and 25 per cent more than one station, this rule does not hold for Secondary centers. Almost half of the City's Secondary centers are located on a street without a rapid transit station. Only 6 per cent of all Secondary centers have 2 stops and none have more than 2. Among the boroughs, the Bronx has the most Secondary centers with transit stops, Brooklyn ranks second, Manhattan third, and Queens last. Queens with the greatest degree of automobile ownership, has the least need for rapid transit facilities in the shopping centers.

TABLE 24.

ENVIRONMENTAL CHARACTERISTICS OF 16 MAJOR SHOPPING CENTERS IN NEW YORK CITY

ENVIRONMENTAL CHARACTERISTIC	NYC Total		Manhattan		Bronx		Brooklyn		Queens		Rich'd.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total No. of Centers	16	100%	4	100%	3	100%	5	100%	4	100%	0	
Shopping Center Street Length in Feet	*		*									
500 - 999	0											
1000 - 1499	2	17			1	33	1	20				
1500 - 1999	1	7							1	25		
2000 - 2499	2	17					2	40				
2500 - 2999	2	17					1	20	1	25		
3000 - 3499	5	42	*	*	2	67	1	20	2	50		
Rapid Transit Stops												
None	1	6					1	20				
One block away	0											
One	11	69	4	100	1	33	2	40	4	100		
Two	3	19			2	67	1	20				
Over two	1	6					1	20				
Surface Transportation												
None	0											
One	4	25	4	100								
Two	3	19					2	40	1	25		
Three	5	31			2	67	1	20	2	50		
Over three	4	25			1	33	2	40	1	25		
Major Traffic Streets												
None	1	6					1	20				
One	10	63	4	100			2	40	4	100		
Two	2	12			1	33	1	20				
Three	3	19			2	67	1	20				

* Does not include Major centers in Manhattan.

TABLE 25.

ENVIRONMENTAL CHARACTERISTICS OF 96 SECONDARY SHOPPING CENTERS IN NEW YORK CITY

ENVIRONMENTAL CHARACTERISTIC	NYC Total		Manhattan		Bronx		Brooklyn		Queens		Rich'd.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total No. of Centers	96	100%	16	100%	21	100%	24	100%	31	100%	4	100%
Shopping Center Street Length in Feet												
500 - 999	22 *	28	*		8	39	2	8	11	35	1	25
1000 - 1499	35	44			11	52	10	42	12	39	2	50
1500 - 1999	8	10			1	5	5	21	1	3	1	25
2000 - 2499	7	9			1	5	3	12	3	10		
2500 - 2999	1	1					1	4				
3000 - 3499	5	6					2	8	3	10		
3500 - 5500	2	2					1	4	1	3		
Rapid Transit Stops												
None	33	34	1	6	6	29	8	33	16	52	2	50
One Block away	13	14	7	44	1	5	2	9	2	6	1	25
One	44	46	8	50	12	57	11	44	12	39	1	25
Two	6	6			2	9	3	12	1	3		
Over Two	0											
Surface Transportation												
None	1	1			1	5						
One	26	27	3	19	6	28	6	25	10	32	1	25
Two	54	56	6	37	12	57	16	67	19	61	1	25
Three	14	15	6	37	2	9	2	8	2	6	2	50
Over Three	1	1	1	6								
Major Traffic Streets												
None	20	21	2	12	7	33	8	33	3	10		
One	47	49	9	56	10	48	7	29	19	61	2	50
Two	22	23	3	19	3	14	9	37	6	19	1	25
Three	7	7	2	12	1	5			3	10	1	25

* Manhattan shopping street length figures not included.

3) Surface Transportation

With one exception, all centers in the City are served by surface transportation facilities. 75 per cent of all Major centers have more than one surface line serving them. 56 per cent have more than 3 routes converging within the area of the center. Most Secondary centers are served by either one or 2 surface lines. Only 16 per cent have more than 3 lines. There is little variation among boroughs in the above characterization.

4) Major Traffic Streets

While most centers are situated on Major traffic streets, only 30 per cent are located at the intersection of 2 or more such streets. This is at variance with the normal belief that intersections are "hot spots" for retail centers and is true of both Major and Secondary centers. The Bronx has only 20 per cent of its Secondary centers at such intersections, and Brooklyn with 37 per cent of its centers at intersections leads the other boroughs. Queens, in spite of its automobile shopping has only 29 per cent of its centers located at major street intersections.

Automobile ownership is of course important in reference to shopping and the boroughs divide into 2 groups when measured by this factor: Manhattan, Brooklyn and the Bronx show 2 to nearly 3 times as many persons per vehicle as Queens and Richmond. In 1947 there were 8.5 persons per vehicle registered in New York City and the boroughs ranked as follows: *

Manhattan	11.0 persons per vehicle
Bronx	10.9 persons per vehicle
Brooklyn	10.9 persons per vehicle
Queens	4.6 persons per vehicle
Richmond	4.7 persons per vehicle

B) Marketing Areas of Centers

Table 26 gives the marketing area populations for 8 Secondary centers in the City and shows that in areas of lower population density fewer people are required to support a Secondary shopping center. Where densities are less than 100 persons to the net residential acre, as in Queens and parts of Brooklyn, the population of marketing areas for the Secondary centers ranges from 10 to 35 thousand people. In areas of from 100 to 200 persons per acre density the marketing area population encompasses from 40 to 60 thousand people. Secondary centers in areas where population densities are over 200 persons per acre have marketing areas in which 70 to 100 thousand people reside. The sizes of the Secondary centers in these areas vary, but not significantly, because in the lower density areas there is less local shopping outside the centers.

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* Sales by boroughs, adjusted by the Port of New York Authority to the estimated Residence Registration.

TABLE 26. POPULATION IN MARKETING AREAS OF SELECTED SECONDARY CENTERS [a]

Area Served	Population Density Per Acre [b]	Population Served by Secondary Center
Whitestone (Queens)	20-30	20,000
Ozone Park (Queens)	50-60	35,000
Flatbush (Brooklyn)	50-60	32,000
Bronx Park East (Bronx)	70-90	24,000
Brighton Beach (Brooklyn)	100-150	45,000
Woodside (Queens)	150-200	47,000
Sunset Park (Brooklyn)	150-200	80,000
East Tremont (Bronx)	200-250	70,000

[a] Based on the Population Density Map, 1940, and estimated marketing areas for selected centers.

[b] Approximate.

C) A Typical Secondary Center

Sunset Park in Brooklyn, a typical Secondary center serving about 80,000 people, has 23 chain stores and 114 independent stores within an area 6 blocks long. Chain stores include one supermarket, one candy store, 3 variety stores, 2 men's wear shops, one family clothing store, 3 women's wear stores, 6 shoe stores, one furniture and home furnishings store, one cigar store, and one sporting goods store. Among the independent stores are 14 food stores, a department store, 7 apparel, 8 eating places, 5 drinking places, and 43 service stores, including shoe repair, cleaners, barbers, etc. *

VI.

VARIATIONS IN STORE-TO-POPULATION RATIO

In section I-C an analysis of the amount of shopping frontage by class of location was shown for several sample residential areas. Unfortunately land use maps for the entire City are not yet available so comparable figures for all types of residential areas cannot be assembled at this time. It is important to recognize local differences when approaching the zoning of local areas throughout the City. As stated before, generally speaking the number of stores increases with population density and decreases as residential rents rise. To ascertain these variations and discover the elements responsible, counts were made of the stores from the Consolidated Edison Marketing Survey maps for 31 sample residential areas throughout the City. These areas selected from the 116 Survey Districts in the Daily News Market Analysis give a cross-section of the entire City. Areas of low, medium and high rental with residential density variations from 22 to 386 persons per acre were selected for study. Of these areas, which are indicated in Map 1, 9 are located in Manhattan, 10 in Brooklyn,

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* See the Appendix for a detailed description of the stores found in this center.

5 in the Bronx, and 7 in Queens. In making the store counts for the sample areas both the population and stores in census tracts containing Major centers were omitted. Therefore, the stores included are only those in Local and Secondary centers. There is great variety in the number of stores per 1000 population among the areas studied. Table 27 gives some indication of the range in each borough. Complete data for all areas is shown in Table 28.

TABLE 27. RANGE IN NUMBER OF STORES PER 1000 POPULATION FOR SELECTED RESIDENTIAL AREAS IN NEW YORK CITY a/

	No. of Areas	Stores per 1000 Population Lowest b/	 Highest b/	 Total Borough Stores in Local and Secondary Locations b/
Manhattan	9	5.59	13.96	7.57
Brooklyn	10	6.21	10.26	7.66
Bronx	5	3.78	7.82	5.86
Queens	7	3.45	6.92	5.72
TOTAL - City	31	3.45	13.96	6.76

a/ Based on: the 1940 Census of Population; the 1940 Census of Housing; the Sectional Map of the City of New York showing 1940 population distribution, Sept. 1945. Committee on Neighborhood Health Development, Dept. of Health and the City Planning Commission of New York; New York City Market Analysis, the Daily News, 1945, the Consolidated Edison Survey of the New York City Market, 1943, the New York Journal-American Sales Operating Manual, 1947.

b/ Covers only stores in the 6 groups mapped by Consolidated Edison, 1943.

1) Variation by Residential Rent

In Manhattan the $35 to $40 rental areas seem to have the highest number of stores. The lower rental areas have slightly less, and as the rent rises above $40, the number of stores decreases until the very highest rental areas are reached. Brooklyn and the Bronx show a steady decrease in number of stores as the average rent increases. The Bronx has fewer stores than Brooklyn for the same rental areas while in Queens there is not much variation in the number of stores as the rent rises.

2) Variation by Density

In Manhattan the number of stores generally decreases as the density increases. In Brooklyn the number of stores increases as density rises from 100 persons to 175 per net acre and then drops as density goes above that point. In the Bronx as the density rises from 25 to 50 persons per acre the number of stores increases from 4 to 6.5 per 1000. After that even though the density rises to 250 persons there is no increase in the number of stores in these areas. Queens shows an increase from 4 to 7 stores per 1000 as the density increases from 25 to 55 persons per net acre.

MAP I

NEW YORK CITY STUDY DISTRICTS

MANHATTAN

1 Battery Park
*2 Greenwich Village
*3 Lower East Side
4 Hell's Kitchen

*5 Chelsea
6 Madison Square
7 Stuyvesant Square
8 De Witt Clinton

9 Columbus Circle
10 Times Square
11 Plaza
12 Queensboro Bridge

*13 Central Park West
*14 Fifth Avenue
15 Yorkville
*16 Columbia University

17 Manhattanville
18 Mount Morris Park
*19 Jefferson Park
*20 Harlem Bridge

21 City College
22 Harlem
*23 Washington Heights
24 Inwood

BROOKLYN

1 Greenpoint
*2 Williamsburg
3 English Kills
4 Brooklyn Heights

5 Fort Greene Park
*6 Stuyvesant
*7 Bushwick
8 South Brooklyn

9 Park Slope
10 Eastern Parkway
*11 Brownsville
*12 Highland Park

13 Sunset Park
*14 Borough Park
15 Kensington
*16 Flatbush

17 Holy Cross
*18 Bay Ridge
*19 Bensonhurst
20 Gravesend

BROOKLYN (Cont.)

*21 South Greenfield
22 Flatlands
23 Mill Basin
24 Canarsie

25 Spring Creek Basin
26 Sea Gate
27 Neck Road
28 Coney Island

BRONX

1 North New York
2 St. Mary's Park
3 Highbridge
*4 Morrisania

*5 Fordham Heights
*6 Bronx Park
7 Jerome Park Res.
*8 Riverdale

9 Hunt's Point
10 Clason Point
11 Throgs Neck
12 Park Versailles

13 Union Port
14 Pelham Bay Park
15 Westchester Heights
16 Williamsbridge

17 Gun Hill Road
18 Baychester
*19 Woodlawn
20 Edenwald

QUEENS

1 Astoria
2 Long Island City
3 Sunnyside
4 Woodside-Winfield

5 Jackson Heights
*6 Corona
*7 Maspeth
8 Elmhurst-S. Elmhurst

QUEENS (Cont.)

9 Ridgewood-Glendale
10 Nassau Heights
*11 Forest Hills
12 Flushing South

*13 Flushing
14 College Point
15 Whitestone
16 Bayside

17 Douglaston-Little Neck
18 Woodhaven
*19 Ozone Park
20 Richmond Hill

21 Jamaica
22 South Jamaica
23 Hollis
*24 Queens Village

25 Howard Beach
*26 Springfield
27 St. Albans
28 Laurelton-Rosedale

29 South Laurelton
30 Neponsit
31 Hammels
32 Arverne

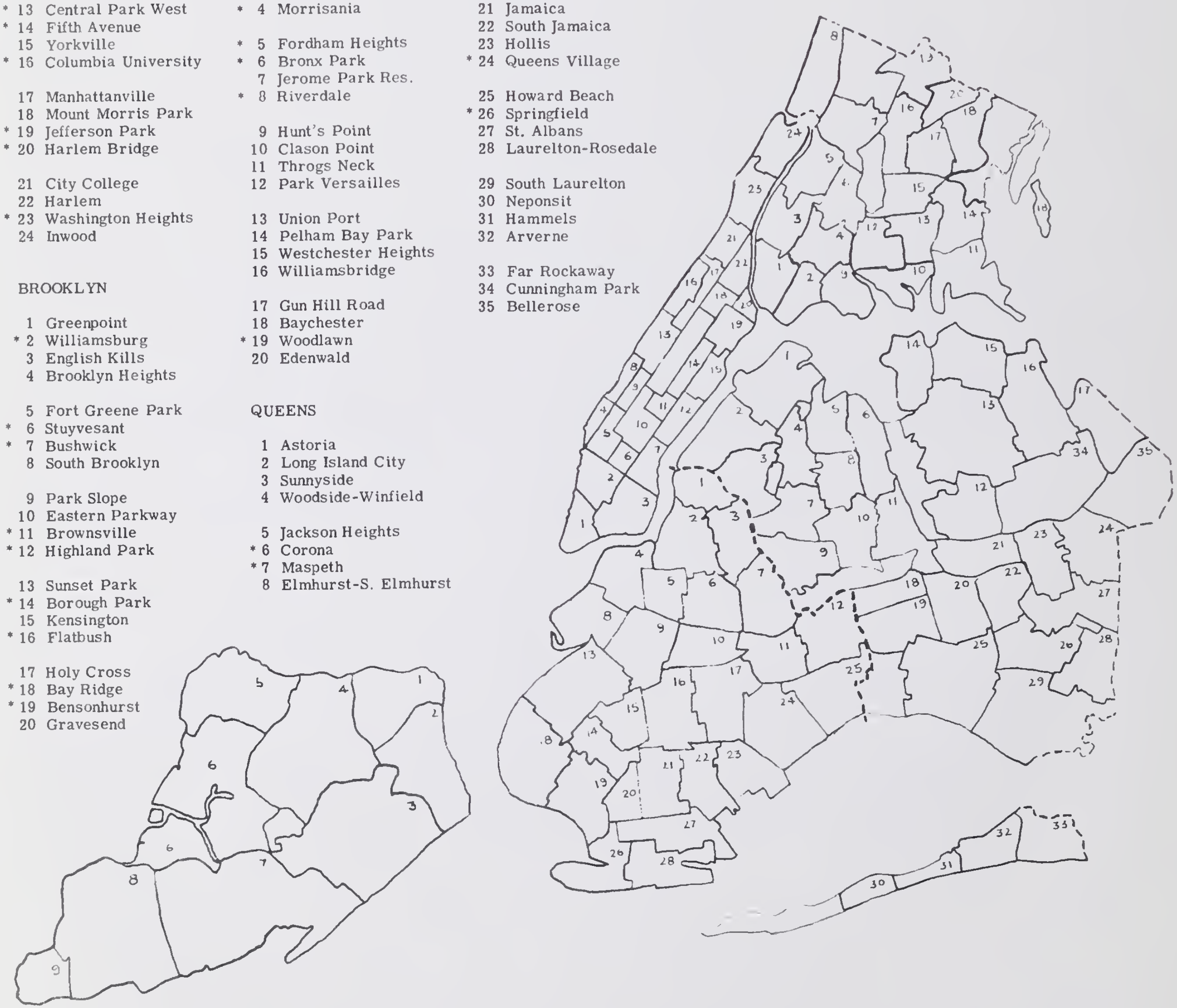
33 Far Rockaway
34 Cunningham Park
35 Bellerose

RICHMOND

1 Brighton
2 Stapleton
3 Dongan Hills

4 Port Richmond
5 Mariner's Harbor
6 Travis

7 Great Kills
8 Prince's Bay
9 Tottenville



* See Table 28 for store counts of shaded areas.

Source: The New York Daily News, 1943

TABLE 28. RETAIL STORES PER 1000 POPULATION IN LOCAL AND SECONDARY CENTERS FOR 31 SELECTED NEW YORK CITY RESIDENTIAL AREAS a/

Area Number d/	Median Rental	Residential Density c/	Population	No. of Stores b/	Stores per 1000 Pop. Total b/
Manhattan					
16. Columbia University	$ 60.33	386	79,132	463	5.85
13. Central Park West	73.08	315	152,614	995	6.52
23. Washington Heights	47.64	325	118,011	660	5.59
14. Fifth Avenue	106.31	204	76,172	676	8.87
19. Jefferson Park	19.95	324	151,381	1,476	9.75
20. Harlem Bridge	20.07	258	29,619	312	10.53
3. Lower East Side	20.01	324	183,172	2,128	11.62
5. Chelsea	32.97	249	57,500	678	11.79
2. Greenwich Village	38.07	235	69,361	968	13.96
Brooklyn					
21. South Greenfield	51.83	75	92,683	576	6.21
18. Bay Ridge	48.49	87	122,663	770	6.27
14. Borough Park	43.96	102	97,687	677	6.93
16. Flatbush	49.52	100	151,403	1,132	7.48
19. Bensonhurst	41.82	102	137.787	1,041	7.55
12. Highland Park	34.02	95	110,864	971	8.76
6. Stuyvesant	30.87	141	149,647	1,255	8.39
7. Bushwick	23.18	148	140,282	1,266	9.02
11. Brownsville	31.33	197	148,943	1,336	8.97
2. Williamsburg	22.05	174	149,409	1,533	10.26
Bronx					
8. Riverdale	55.35	22	22,464	85	3.78
19. Woodlawn	45.74	53	44,909	296	6.59
5. Fordham Heights	45.91	286	160,390	1,069	6.66
4. Morrisania	34.81	251	211,590	1,462	6.91
6. Bronx Park	35.89	232	151,707	1,187	7.82
Queens					
26. Springfield	41.20	27	20,355	72	3.45
24. Queens Village	40.97	31	39,914	204	5.11
7. Maspeth	33.70	57	38,724	206	5.32
13. Flushing	52.08	33	72,463	428	5.90
11. Forest Hills	65.70	49	43,264	267	6.17
6. Corona	30,96	61	64,101	397	6.19
19. Ozone Park	40,58	56	64,549	447	6.92

a/ Based on: 1940 Census of Population; the 1940 Census of Housing; the Sectional Map of the City of New York showing 1940 population distribution, Sept. 1945. Committee on Neighborhood Health Development. Dept. of Health and the City Planning Commission of New York; New York City Market Analysis, the Daily News, 1945, the Consolidated Edison Survey of the New York City Market, 1943, the New York Journal-American Sales Operating Manual, 1947.

b/ Covers only Stores in the 6 groups mapped by Consolidated Edison, 1943.

c/ Density calculations include one-half of area of street with area of residential properties.

d/ See Map 1.

From the above it is apparent that there is some tendency for the number of stores per 1000 population to vary with the density and rent or income level of the population. It is apparent that the higher rental areas do not require more stores, and that up to a certain point the number of stores per 1000 increases with the density. However, there is nothing to indicate that the retail land needs of an area can be read from a curve once the rental and land density are known. For example, there is evidence that the amount of commercial land required in Brownsville per 1000 people is more than would be needed in Flatbush and so on. In other words, this analysis is helpful to the planner in his approach to the zoning problem insofar as it indicates local variations which must be considered in computing commercial land needs for mapping each residential area of the City. It cannot be accepted as conclusive until the land use maps become available making further analysis of frontages in these same areas possible.

VII.

PARKING SPACE REQUIREMENTS

Parking space requirements for retail centers as recommended by most authorities range from 1 to 3 square feet of parking for each square foot of interior floor space. Spatial needs vary with the size of the center and its location. For small centers, which in most urban areas are located within walking distance of a good portion of their customers, less parking space is needed than for a large center which draws people from a wide area. If a center is located within the densely populated areas found throughout New York City, little parking space is needed, regardless of size. For centers in outlying, more sparsely populated areas the degree of drive-in shopping is much higher and the parking space required correspondingly greater.

All the standards quoted in Table 29 refer to centers in outlying areas, with the exception of Lillibridge's which were recommended for redevelopment areas in Chicago. Although automobile ownership is still more common in Chicago than in most sections of New York, the 1:1 ratio he recommends seems reasonable for some large centers in this City.

It is apparent that parking space requirements vary by type of center and the character of surrounding development. Legal minimums therefore must not be arbitrary, but should represent amounts which can reasonably be required. Most zoning ordinances which contain required parking provisions for retail uses apply these provisions only to the larger-sized stores. These are the only enterprises which can afford to provide their own space in sufficient quantity. The smaller stores would have to pool their spaces to develop an area sufficiently large for efficient operation.

TABLE 29. RECOMMENDED PARKING SPACE RATIOS FOR RETAIL SHOPPING CENTERS

Source	Ratio of Standard Parking Space to Floor Space (Square Feet)	Remarks
Community Builders Handbook a/	2 to 1 3 to 1	Average lower if there is some walk-in traffic If principally drive-in
Dave Bohannon San Mateo, Calif. a/	2 to 1	Exclusive of curb space
Waverly Taylor Washington, D. C. a/	2 to 1	Even if 60% of trade is walk-in
J. C. Nichols Kansas City a/	1-1/2 to 1 2 to 1	Where there is walk-in trade A new drive-in center
Villanueva b/	2 to 1 1-1/2 to 1	For center serving 5,000 people For center serving 1,000 people
Lillibridge c/	1 to 1 1 to 1	For center serving 70,000 people For center serving 10,000 people

a/ "The Community Builders Handbook," Urban Land Institute, 1947.

b/ "Planning Neighborhood Shopping Centers," Marcel Villanueva.

c/ "Shopping Centers for Urban Redevelopment," Robert M. Lillibridge.

VIII.

STANDARD STORE SIZES AND DEPTHS

Store sizes and depths vary both with type of store and location. Average store size is small in New York City and it is difficult for retailers who require large space to find such facilities in the City. This is due partly to the standard depth limitation in the present ordinance of 100 feet in Business Districts. This depth is adequate for the average neighborhood store which ranges in width from 15 to 30 feet and in depth from 30 to 70 feet. Frontage is still more expensive than depth particularly in the better locations. It is at these points of shopping concentration that an increase in zoned depth will provide much needed additional space for the larger stores. In the outlying lower density areas, this additional depth would provide space for off-street loading and parking where the stores themselves do not require additional space.

TABLE 30. RECOMMENDED STORE SIZES FOR MODERN RETAIL REQUIREMENTS

Source	Type of Center	Average Store Size in Sq. Ft.	Total Stores	Stores over 2000 Sq. Ft.
Community Builders Handbook a/	Local Center	1380	5	1
	Local Center	1720	5	2
	Local Center	1345	10	2
	Medium-Sized Center	2055	12	4
	Large Center	2452	17	5
Villanueva b/	Serving 2,500 Pop.	2285	9	3
	Serving 5,000 Pop.	2275	17	6
Lillibridge c/	Serving 10,000 Pop.	2965	8	5
	Serving 10,000 Pop.	2516	12	6
	Serving 70,000 Pop.	3277	30	17

Stores Sizes Preferred by Chains a/

Supermarkets	100 x 150
Grocery Stores	50 x 125
Drug Stores	40 x 90
Hardware Stores	50 x 100
Variety (5 & 10¢) Stores	50 x 125

a/ "Community Builders Handbook," *ibid.*

b/ "Planning Neighborhood Shopping Centers," Marcel Villanueva.

c/ "Shopping Centers for Urban Redevelopment," Robert Lillibridge.

From Table 30 it is evident that average store sizes in larger centers are greater than for the smaller local centers. Stores of over 2000 square feet make up only one-fifth of all stores in the local centers, but up to one-third and even one-half of the total in the very large centers. An indication of the importance of adequate store size is given in the following quotation of the "Community Builders Handbook": "The ability to provide stores of varying depths is a very valuable asset to any center. Depths from 40 to 150 feet are required in many cases." *

Store sizes preferred by chains are substantially larger than for most independent stores because of the larger sales volume desired. These stores tend to be located at points of shopping concentration where additional depths would enjoy favorable use.

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* "Community Builders Handbook," the Urban Land Institute, 1947. page 194.

MAJOR SOURCES

1. The United States Census of Business in 1929, 1935, and 1939 provided figures by borough on retail and service establishments, covering number, type of merchandise, volume of sales, etc. This Census furnishes no data on acreage, frontage or other physical characteristics and for New York City no data is given on geographic units smaller than the individual boroughs.

2. The Consolidated Edison's "Survey of the New York City Market", conducted in 1943, made a count of all retail and service stores by type, and by Census tract. No frontage or area information was included. The survey conformed to the Census classification of stores by type. An important addition to the Census was its listing of vacant units.

3. "Sales Operating in the New York Market", is an annual publication of the New York Journal-American. The Hearst Advertising Service conducts an annual field survey of commercial frontage, classifying and mapping retail locations and tabulating various data on location characteristics of related types of stores. In 1946, this survey issued tables listing and classifying all shopping centers as "Major" and "Minor" ("Secondary" in this study). This classification was based largely on chain store practice in the location of units of different sizes. In 1946 this survey published a special study of grocery store sales by borough, by ownership and location, furnishing a valuable clue to the importance of chain merchandising and super-markets.

4. The New York Daily News, in cooperation with other New York newspapers published a New York City Market Analysis in 1940, based entirely on Census of Population and Housing data. It grouped the various census tracts into districts. These districts are used for certain detailed studies in this report.

5. "Existing Land Uses in the City of New York", The New York City Planning Commission's unpublished report on the 1938 Survey of Existing Land Uses, provides data by borough, on the acreage, and frontage of properties in commercial use. No distinction is made by type of merchandise, etc.

STATISTICAL APPENDIX

TO

LOCAL RETAIL REQUIREMENTS

THE PLAN FOR REZONING
City Planning Commission
City of New York

Harrison, Ballard & Allen
April, 1949

TABLE 1. SUNSET PARK, BROOKLYN (Secondary Shopping Center) a/

	SECONDARY CENTERS			
	N. W. SIDE		S. E. SIDE	
TYPE OF STORE b/	INDEPENDENT	CHAIN	INDEPENDENT	CHAIN
Combination (Grocery & Meats)			1	1
Meat			6	
Fish			2	
Candy & Confectionary	1	1	1	
Fruit & Vegetable Markets			2	
Bakeries			2	
Dry Goods	2		1	
Variety Stores (5¢ & 10¢)	1	3	1	
Men's & Boy's Clothing	8	2	7	
Family Clothing	3	1	1	
Women's Wear	13	3	1	
Shoes	7	6	1	
Furniture and Home Furn.	4	1	7	
Radio			1	
Heating etc. Dealers				
Paint, Glass, Wallpaper			2	
Electrical Supplies				
Hardware				
Eating Places			8	
Drinking Places	1		5	
Drug Stores	2		2	
Liquor (Package)	1			
Jewelry	1	1	4	
Books, Stationery, Cigars	1		1	
Florists			2	
Gifts			3	
Opticians	1		1	
Sporting Goods		1		
Cleaning, Dying & Pressing				2
Shoe Repair			2	
Watch & Jewelry Repair			1	
Real Estate, Insurance, Loans			2	
Banks	1		1	
TOTAL	47	19	68	3

a/ Based on Field Observation, December, 1948.

b/ None of the following stores are in this shopping center: Grocery, Delicatessen, Department Stores, Tailors, Filling Stations, Fuel, Ice, Oil Dealers, Photographic Supplies, Luggage, Piano & Music Stores, Barber Shops, Beauty Parlors, Hand Launderies, Photographic Supplies, Auto Garages, Parking Lots, Upholst. & Furn. Repair, Funeral Parlors, Theaters.

TABLE 1. (Cont.) SUNSET PARK, BROOKLYN (Secondary Shopping Center) a/

	SECOND FLOOR USES IN SECONDARY CENTERS			
	N. W. SIDE		S. E. SIDE	
TYPE OF STORE b/	INDEPENDENT	CHAIN	INDEPENDENT	CHAIN
Loan Agency	2			
Dentists Office	3		4	
Meeting Rooms	1			
Men's Wear	3		2	
Women's Wear	1			
Beauty Parlor	2		2	
Restaurants	3			
Photographic Studios	2			
Real Estate	2		1	
Showrooms for Furniture Stores	2		1	
Storage	6		2	
Bowling	1			
Chiropodist	1		1	
TOTAL	29		13	

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a/ Based on Field Observation, December, 1948.

b/ None of these Second Floor Uses are in this Shopping Center: Business Schools, Dancing Schools, Employment Bureaus, Doctors Offices, Dry Goods.

STORES PER 1000 PERSONS BY BOROUGH FOR ALL CLASSES OF MERCHANDISE
TABLE 2. NEW YORK CITY, 1939*

KIND OF BUSINESS	NYC Total	MAN	BKLYN	BRONX	QUEENS	RICHM'D
		(NUMBER OF STORES PER 1000 POPULATION)				
RETAIL STORES						
Grocery	2.0	1.9	2.2	1.9	1.7	2.1
Combination (Grocery & Meats)	.2	.3	.1	.1	.3	.7
Dairies	.1	.1	.1	.2	.06	.03
Meat	1.0	.9	1.1	1.1	1.0	.6
Fish	.2	.2	.2	.2	.1	.1
Candy and Confectionary	1.2	1.2	1.4	1.0	.9	.9
Delicatessen	.3	.2	.3	.2	.3	.5
Fruit and Vegetable Markets	.9	1.1	.9	1.0	.6	.4
Bakeries	.3	.3	.3	.4	.2	.1
Department Stores	.006	.01	.003	.005	.005	.3
Dry Goods	.4	.4	.4	.3	.3	
Variety Stores (5 & 10¢)	.1	.1	.2	.1	.1	.1
Men's & Boy's Clothing	.3	.6	.3	.2	.2	.2
Family Clothing	.05	.06	.04	.04	.06	.1
Women's Wear	.9	1.6	.7	.5	.5	.4
Shoes	.3	.4	.3	.2	.2	.2
Tailors	.09	.3	.04	.01	.01	
Furniture and Home Furn.	.5	.7	.4	.4	.3	.3
Radio	.06	.09	.06	.04	.05	.07
Automotive Sales	.2	.1	.1	.2	.2	.3
Filling Stations	.4	.2	.3	.3	.7	1.0
Heating, etc. Dealers	.4	.5	.4	.3	.4	.5
Paint, Glass, Wallpaper						
Electrical Supplies						
Hardware						
Eating Places	1.5	3.0	1.1	.8	1.2	1.4
Drinking Places	.7	.8	.5	.5	.9	1.4
Drug Stores	.5	.6	.5	.5	.5	.5
Liquor (Package)	.1	.2	.09	.08	.1	.1
Fuel, Ice, Oil, Dealers	.3	.5	.3	.2	.3	.8
Jewelry	.1	.3	.05	.05	.05	.07
Books, Stationery, Cigars	.8	1.4	.6	.5	.5	.3
Florists	.2	.3	.1	.09	.2	.2
Gifts	.1	.1	.07	.05	.1	.07
Opticians	.07	.1	.06	.04	.03	.05
Photographic Supplies	.02	.04	.007		.01	.01
Sporting Goods	.02	.04	.01	.01	.02	.05
Luggage	.02	.1	.02	.01	.01	.006
Piano and Music Stores	.03	.1	.02	.01	.01	.006
TOTAL	14.366	18.84	13.27	11.535	12.115	13.862
SERVICE STORES						
Barber Shops	1.1	1.5	1.1	.83	1.0	1.1
Beauty Parlors	.6	.9	.5	.42	.6	.5
Cleaning, Dying and Pressing	1.3	1.7	1.2	1.2	1.0	.7
Hand Laundries	.8	1.3	.6	.75	.5	.2
Photographic Studios	.1	.3	.06	.06	.07	.1
Shoe Repair	.8	.8	.8	.8	.8	.7
Auto Repair	.3	.3	.3	.3	.2	.2
Auto Garages	.2	.3	.2	.2	.05	
Parking Lots	.08	.08	.06	.08	.1	
Radio Repair	.1	.2	.1	.11	.1	.1
Upholst. and Furn. Repair	.2	.3	.2	.14	.1	.1
Watch and Jewelry Repair	.2	.5	.1	.11	.09	.1
Funeral Parlors	.1	.2	.1	.06	.1	.1
TOTAL	6.0	8.5	5.3	5.1	4.7	3.9

* U. S. Census of Business, 1939.

APPENDIX

TO

LOCAL RETAIL REQUIREMENTS

BASIC PROBLEMS FACING SHOPPING CENTERS: INTERVIEWS WITH SELECTED CHAIN STORE EXECUTIVES

APPENDIX I

BASIC PROBLEMS FACING SHOPPING CENTERS: INTERVIEWS WITH SELECTED CHAIN STORE EXECUTIVES

INTRODUCTION

To discover the type and location of space desired by retail merchants, a number of chain store executives* were interviewed during January, 1949. Information obtained from interviews formed the basis for many of the recommendations for local business districts.

The majority of executives interviewed believed New York was overzoned commercially. All were of the opinion that retail shopping in New York City is concentrating into fewer and larger stores. They generally approved the cluster idea of retail shopping development and expressed a desire for deeper zoned commercial depth and for off-street parking and loading areas.

1. LOCATION REQUIREMENTS

Only large chain food and variety stores will pioneer in a new location. Most retail chain managements require what is known as a 100 per cent location, which is largely found in the secondary centers. However, definition of a 100 per cent location varies in respect to the kind of merchandise sold. Women's apparel stores generally desire and secure the best locations in the heart of the shopping center. The men's apparel center is off this 100 per cent location but has within itself a 100 per cent location value. Most stores prefer to locate near a competing store selling the same kind of merchandise. They feel that other stores draw customers to the center and that the customers must have a choice of selection or they will go elsewhere. The only business which does not welcome competitive stores in the vicinity is the household appliance and radio business, because all appliance stores sell the same stock merchandise with little or no difference in quality and quantity. Drug chains require the proximity of a recreation center, including a bowling alley, theatre or school. One women's apparel chain required that it locate stores near Schrafft's restaurants. Many thought that a medium-rent high density apartment development or office development provided a near 100 per cent location even if no other shops were located there. All chains depend upon a large middle-class population in the adjacent area. Large food, appliance and furniture stores prefer to locate on the fringe of a 100 per cent location to obtain more space at moderate rentals.

2. PREFERRED SIDE OF STREET

Most retailers prefer to locate on the same side of the street as other retail shops selling the same merchandise. The shady side of the street was often selected to prevent fading of displayed merchandise. However, many confessed that the side of the street which might develop best was often an unknown quantity dependent upon direction of traffic, historical accidents and topography.

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* The A & P, Mr. Wittnebert; Dynamic Stores, Mr. Haizen; Grayson Shops, Mr. Posner; A. S. Beck, Mr. Weiss; W. T. Grant, Mr. Boyle; Lerner Shops, Mr. Robbins; Thom McAn, Mr. Paar; Howard Clothes, Mr. Marks; Davega Stores, Mr. Cohen; Liggetts Drugs, Mr. Master; Plymouth Shops, Mr. Goldstone; Saks Quality Furniture, Mr. Edelman.

3. REQUIRED LOT

All executives interviewed, with one exception, would welcome additional depth for the expanding needs of their stores. Floor space requirements varied from 100' to 150' in depth.

4. OFF-STREET PARKING CONSIDERED MAJOR PROBLEM

Business men seem to be in thorough agreement that the major problem facing retail business is the provision of adequate parking space. The chains with smaller-size stores felt that the lack of parking space in most New York City areas did not affect their business. On the other hand, they did feel it would be advantageous to have access to a parking lot. All agreed that a municipally-owned or group-owned-and-managed parking lot would be the most efficient solution of the parking problem and would contribute land for a pooled parking area if enough depth was zoned for commercial use.

The following suggestions for providing parking space were offered: (1) make it necessary by law for each large building to provide parking beneath it; (2) provide municipal parking lots; and (3) enforce community pooling of space for parking.

5. OFF-STREET LOADING

The problem of loading was of importance only to these stores which sell bulky merchandise or make many deliveries. All store executives regarded an off-street loading platform as a convenience. Many independent methods of solving this problem were noted, with the most favored an early morning delivery schedule. One food chain employed a night crew to deliver merchandise after hours. The main difficulty in providing off-street loading is the lack of access to rear of stores and the insufficient depth for loading platforms.

6. HEIGHT OF COMMERCIAL BUILDINGS

Most chain stores operate on one floor. Furniture and appliance stores are the only exceptions, using two or three floors. It was felt that upper floors used for office or residential space in secondary centers do not increase the income of the property to any measurable extent and generally tend to become a deteriorating influence.

7. COVERAGE

The majority seemed to favor complete coverage under present conditions, but offered concessions for parking if enough space was zoned for commercial use.

8. DESIGN RESTRICTIONS

Objections to complete design restriction seemed to be universal. Apparel shops in particular objected to design restrictions as they regard their store fronts as trade marks. All agreed, however, with the exception of hotels and theaters, that over-hanging and flashing signs had a deteriorating effect upon a neighborhood and they would not object to their elimination provided that the restriction was applied uniformly.

9. SET BACKS

Set backs, even though uniformly applied were not favored. One business man felt it might possibly alleviate the peculiar problem which arises when people crowd in front of a corner store while waiting for a bus, hiding the windows and making it difficult for customers to enter. Others felt that the only advantage of a set back would be to permit an arcade for show windows. Only grocery stores believed that set backs might solve their problem of small vehicle or baby carriage parking.

10. STABILITY OF BUSINESS LOCATION

Length of commercial leases varies from five to twenty-five years. Three major factors cited as contributing to the constant mobility of retail locations are: deterioration of buildings caused by the landlord's refusal to rebuild or repair, population movement and change in neighborhood characteristics, and changes in business practice or merchandising methods.

11. NUMBER OF STORES

In general, chains are reducing the number of their stores in New York City and increasing the size of the individual stores. The tendency to follow the outward sprawl of residential building is also evident in recent retail chain store building activity in newly developed areas.

12. CONCLUSION

Most retail merchants would support a zoning law encouraging the concentration of stores into more compact areas if more depth for commercial purposes and more space for parking and loading were provided. They would be willing to accept certain uniformly applied restrictions in order to create more stable and usable shopping districts.

APPENDIX

TO

LOCAL RETAIL REQUIREMENTS

MAJOR SHOPPING CENTERS

(FROM NEW YORK JOURNAL-AMERICAN SALES CONTROL MANUAL)

March, 1949

MAJOR SHOPPING CENTERS

(FROM NEW YORK JOURNAL-AMERICAN SALES CONTROL MANUAL)

BOROUGH OF MANHATTAN

1. Cortland Street-Church Street to Broadway
   Broadway-Liberty Street to John Street
   Nassau Street-Fulton Street to John Street
2. West 14th Street-6th Avenue to 4th Avenue
3. All Midtown Manhattan
4. East 86th Street-Lexington Avenue to 3rd Avenue
5. West 125th Street-8th Avenue to Lenox Avenue
6. West 181st Street-Broadway to St. Nicholas Avenue

BOROUGH OF THE BRONX

1. Third Avenue-East 147th Street to East 155th Street
   East 149th Street-Courtland Street to Brook Avenue
2. Fordham Road-Jerome Avenue to Park Avenue
3. Southern Blvd.-East 163rd Street to Westchester Avenue

BOROUGH OF BROOKLYN

1. Fulton Street-Willoughby Street to Flatbush Avenue
   Livingston Street-Smith Street to Nevins Street
   Flatbush Avenue-Fulton Street to 4th Avenue
2. Broadway-Gerry Street to Ellery Street
3. Broadway-Green to Gates Avenue
4. Pitkin Avenue-New York Avenue to Stone Avenue
5. Kings Highway-East 10th Street to Ocean Avenue

BOROUGH OF QUEENS

1. Steinway Street-Broadway to 28th Avenue
2. Myrtle Avenue-Wycoff Avenue to Forest Avenue
3. Main Street-Northern Blvd. to Roosevelt Avenue
4. Jamaica Avenue-160th Street to Grand Avenue

SECONDARY SHOPPING CENTERS

(FROM NEW YORK JOURNAL-AMERICAN SALES CONTROL MANUAL)

BOROUGH OF MANHATTAN

1. Canal Street-Centre Street to Bowery
2. Canal Street & Chrystie Street
   Division Street-Catherine Street to Forsythe Street
3. Schiff Parkway-Edlridge Street to Clinton Street
   Avenue A-1st Street to 3rd Street
4. West 14th Street-7th Avenue to 6th Avenue
5. West 14th Street-4th Avenue to 3rd Avenue
6. Broadway-West 72nd Street to West 90th Street
   West 72nd Street-Broadway to Columbus Avenue
7. Madison Avenue-East 63rd Street to East 81st Street
8. 3rd Avenue-East 84th Street to East 87th Street
9. Broadway-West 90th Street to West 97th Street
10. 3rd Avenue-East 105th Street to East 108th Street
    East 115th Street to 119th Street
11. West 125th Street-Morningside Avenue to 8th Avenue
12. West 116th Street-8th Avenue to 5th Avenue
    5th Avenue-East 116th Street to East 112th Street
    West & East 125th Street-Lenox Avenue to Park Avenue
13. 3rd Avenue-East 119th Street to East 125th Street
    East 125th Street-Park Avenue to 3rd Avenue
14. Broadway-West 144th Street to West 146th Street
15. Dyckman Street-Nagle Avenue to Broadway
16. West 207th Street-Broadway to Post Avenue

BOROUGH OF THE BRONX

1. East 138th Street-Brook Avenue to St. Ann's Avenue
2. Prospect Avenue-Longwood Avenue to East 161st Street
   Prospect Avenue-Longwood Avenue to East 162nd Street
3. East 170th Street-Jerome Avenue to Sheridan Avenue
4. East 167th Street-River Avenue to Walton Avenue
5. East 169th Street & Boston Road
6. Wilkins Avenue & Southern Blvd.
7. Third Avenue-East 173rd Street to East 175th Street
8. East Kingsbridge Road-Jerome Avenue to Grand Concourse
9. East Burnside Avenue-Jerome to Grand Concourse
10. East 204th Street-Webster Avenue to Bainbridge Avenue
11. Jerome Avenue-East 208th Street to Gun Hill Road

SECONDARY SHOPPING CENTERS

(FROM NEW YORK JOURNAL-AMERICAN SALES CONTROL MANUAL)

BOROUGH OF THE BRONX

12. East Tremont Avenue-Park Avenue to 3rd Avenue
13. Crotona Avenue to Southern Blvd.
14. West 231st Street & Broadway
15. Boston Road-Eastchester Road to Fish Avenue
16. Allerton Avenue & Cruger Avenue
17. White Plains Road-Maran Place to Pelham Pkway.
18. Parkchester
19. Castle Hill Avenue-Gleason Avenue to Lyon Avenue
20. Lane Ave. & Williamsbridge Road
21. Westchester Avenue-Elder Avenue to Stratford Avenue

BOROUGH OF BROOKLYN

1. Manhattan Avenue-Kent Street to Driggs Avenue
2. Broadway-Haremeyer Street to Rodney Street
3. Grand Street-Lorimer Street to Humbold Street
4. Manhattan Avenue-Meserole Street to Broadway
   Myrtle Avenue & Court Street
5. Fulton Street-Bedford Avenue to Nostrand Avenue
6. Broadway-Ellery Street to Greene Street
7. Gates Street to Decatur Street
8. Knickerbocker Avenue-Hart Street to Myrtle Avenue
9. Columbia Street-Summit Street to Degraw Street
10. 5th Avenue-9th Street to 16th Street
11. Nostrand Avenue-St. Johns Place to St. Marks Avenue
12. Utica Avenue-President Street to St. Johns Place
13. 5th Avenue-49th Street to 56th Street
14. 13th Avenue-49th Street to 40th Street
15. Flatbush Avenue-Church Avenue to Beverly Road
16. Utica Avenue-Linden Blvd. to Church Avenue
17. Sutter Avenue-Van Sinderen Avenue to Pennsylvania Ave.
18. 86th Street-4th Avenue to Ft. Hamilton Parkway
19. 18th Avenue-63rd Street to Bay Ridge Avenue
20. Bay Parkway-66th Street to 71st Street
21. 86th Street-Bay 20th Street to Bay 29th Street
22. Avenue J-Coney Island Avenue to East 16th Street.
23. Flatbush Avenue-Glenwood Road to Avenue H
24. Brighton Beach Avenue-Brighton 5th Street to 8th Street

SECONDARY SHOPPING CENTERS

(FROM NEW YORK JOURNAL-AMERICAN SALES CONTROL MANUAL)

BOROUGH OF QUEENS

1. Grand Avenue-31st Street to Steinway Street
2. Ditmars Blvd. & 31st Street
3. Greenpoint Avenue-Nelson Avenue to Queens Blvd.
4. Roosevelt Avenue-Woodside Avenue to 64th Street, 80th Street to 85th Street
5. 82nd Street-37th Avenue to Baxter Avenue
6. Junction Blvd.-37th Avenue to Roosevelt Avenue
7. 103rd Street & Roosevelt Avenue
8. Grand Avenue-69th Street to 71st Street
9. Metropolitan Avenue-73rd Place to 75th Street.
10. 71st Avenue & Austin Street
11. Fresh Pond Road-Woodbine Street to Catalpa Avenue
12. Myrtle Avenue-George Avenue to 70th Street
13. Northern Blvd.-157th Street to 162nd Street
14. 150th Street-Cross Island Pkway. to 12th Road
15. Bell Blvd. & Ahles Road
16. Northern Blvd. & Deppe Street
17. Lefferts Blvd.-Talbot Street to Cuthbert Road
18. Jamaica Avenue-Sutphin Blvd. to 170th Street
19. Jamaica Avenue-213th Street to 221st Street
20. Jamaica Avenue-80th Street to 96th Street
21. 110th Street to 120th Street
22. Liberty Avenue-114th Street to 129th Street
23. Francis Lewis Blvd. & Hollis Avenue
24. Linden Blvd. 220th Street
25. Merrick Blvd. & Francis Lewis Blvd.
26. Rockaway Blvd.-131st Street to Van Wyck Blvd.
27. Rockaway Blvd. & Cross Bay Blvd.
28. Beach 116th Street & Rockaway Beach Blvd.
29. Rockaway Beach Blvd. & Beach 84th Street
30. Beach 20th Street-Mott Avenue to New Haven Avenue

BOROUGH OF RICHMOND

1. Bay Street-Canal Street to Sands Street
   Canal Street & Water Street-just off Bay Street
2. Castleton Avenue-Donegan Street to Alaska Street
3. Richmond Avenue-Albion Avenue to Ann Street
4. Amboy Road-Hillside Terrace to Nelson Avenue

SUPPLEMENTARY TECHNICAL MEMORANDUM

LOCAL RETAIL REQUIREMENTS

SUNSET PARK, BROOKLYN

THE RELATIONSHIP BETWEEN ZONING, USE AND ASSESSMENTS

THE PLAN FOR REZONING
City Planning Commission
City of New York

Harrison, Ballard & Allen
February, 1949

INTRODUCTION

To determine the relative effect of zoning and use on assessments, two sections of the Sunset Park vicinity in Brooklyn were studied. Area I comprises 74 blocks; the Avenue frontages are zoned for commerce and the side streets for residence. Area II has 14 blocks zoned entirely for business.

AREA I

1) Total Valuations in Area I by Use and Zone

Table 1. presents the raw material upon which the analysis for this area is based. Twenty-eight per cent of all the land in Area I lies within Business Districts. This land produces 43 per cent of the income which the City extracts from the entire area. Seventy-two per cent of the land in Business Districts is actually in Business or mixed Residential and Business use. This is a high figure for a residential area as a great deal of land zoned for Business throughout the City is not in business use.

TABLE 1. FRONTAGE AND DOLLAR ASSESSMENT VALUE BY USE AND ZONE, AREA I

Zoning District	Use	Front Feet	Land Valuations	Building Valuations	Total Land and Buildings
Business	Bus.	3,538	$ 2,042,650	$ 2,073,250	$ 4,115,900
	Mixed	17,811	6,393,575	8,916,325	15,309,900
	Res.	7,717	1,879,900	2,918,100	4,798,000
	Vac.	448	90,650	3,500 [a]	94,150
	Total	29,514	$10,406,775	$13,911,175	$24,317,950
Residential	Bus.	615	119,600	206,000	325,600
	Mixed	60	5,400	17,400	22,800
	Res.	73,951 [b]	11,551,358 [b]	20,296,717 [b]	31,848,075 [b]
	Vac.	554	66,750	1,000 [a]	67,750
	Total	75,180	$11,743,108	$20,521,117	$32,264,225
TOTAL		104,694	$22,149,883	$34,432,292	$56,582,175

[a] A few vacant lots with improvements assessments.

[b] Estimated from a 40 per cent sample.

2) Average Front Foot Valuations Vary by Zoning Districts

Study of the 74 blocks in Area I clearly shows that assessments are based primarily on the zone in which a property is located and secondarily on its use. As shown in Table 2 the average front-foot valuation for residential property in the Business zone is $622 compared with $529 per average front foot for business property located in the Residential zone.

TABLE 2. AVERAGE ASSESSMENT PER FRONT FOOT BY USE AND ZONE, AREA I

	BUSINESS ZONE				RESIDENTIAL ZONE			
	Business Use	Mixed Use	Residential Use	Vacant	Business Use	Mixed Use	Residential Use	Vacant
Land	$ 577	$359	$244	$202	$194	a/	$154	$120
Buildings	586	500	378	8 b/	335		266	2 b/
TOTAL	$1,163	$859	$622	$210	$529		$420	$122

a/ Less than 100 feet in frontage.

b/ A few vacant lots with improvements assessments.

3) Variation by Location

To prevent the concentrated and flourishing business district on Fifth Avenue from weighting the use-value averages disproportionately, separate tabulations have been made in Table 3 for each avenue and for the blocks between the avenues. This breakdown reveals a vast discrepancy between locations. Land and building assessments for residential properties located in the residentially-zoned blocks near the Fifth Avenue shopping center are somewhat higher than for business properties in the poorer areas of the Business zone, such as Third Avenue. However, within each tabulated area, the same relationship found in Table 2 prevails. In sections where there is little prosperous business as on Seventh Avenue, assessments on the avenues for business uses are lower than for mixed uses and are not much higher than for residential uses.

TABLE 3. AVERAGE LAND ASSESSMENT PER FRONT FOOT BY LOCATION, ZONE AND USE, AREA I

	BUSINESS ZONE				RESIDENTIAL ZONE			
Location	Bus. Use	Mixed Use	Res. Use.	Vac.	Bus. Use	Mixed Use	Res. Use.	Vac.
Third Avenue	$163	$159	$133	$143 *				
Between 3rd & 4th					$142	$ 90 *	$133	$123
Fourth Avenue	$332	$382	$354	$255				
Between 4th & 5th					$300	none	$168	$150 *
Fifth Avenue	$971	$587	$695	none				
Between 5th & 6th					$175 *	none	$178	$125 *
Sixth Avenue	$245 *	$264	$217	$223				
Between 6th & 7th					none	none	$151	none
Seventh Avenue	$227	$233	$218	none				

* 100 or less front feet.

AREA II

Area II is composed of the 14 blocks adjacent to Greenwood Cemetery zoned entirely for Business.. The purpose of this study was to determine whether solid zoning for business would tend to raise the level of assessments on the side streets or depreciate the value of land on the avenues. Total assessments in this area are given in Table 4.

TABLE 4. FRONTAGE AND DOLLAR ASSESSMENT VALUE BY USE, AREA II

Use	Front Feet	Land	Buildings	Land and Improvements
Business	1,385	$ 211,450	$ 284,850	$ 496,300
Mixed	1,577	324,600	455,400	780,000
Residential	8,073	1,032,550	1,876,550	2,909,100
Vacant	2,293	331,400	2,450 *	333,850
TOTAL	13,328	$1,900,000	$2,619,250	$4,519,250

* Some vacant land with improvements.

1) Valuation by Location

The general level of assessments in this area proved to be much lower than that of Area I. The average assessment (land and buildings) per front foot for all uses in Area II was $380 compared with an average in Area I of $831 in the Business zone and $430 in the Residential zone.

Mixed use has the highest assessment of the four use classifications in Area II. Business-use land ranks low and business-use buildings on the avenues even lower, due probably to the high incidence of used-car lots and filling stations. Vacant land is assessed higher than the land used for residence.

The most significant variations in assessments are a function of the location of property. Assessments are particularly low for the frontage on the side streets and for Fifth Avenue frontage facing Greenwood Cemetery. Assessments for both mixed and residential use on Fourth Avenue (a good business street here) are uniformly high for the area. This suggests that in this "all-business-zone", as in Area I, assessments were made according to the maximum possible use rather than actual use. Front foot assessments by location within the area are shown in Table 5.

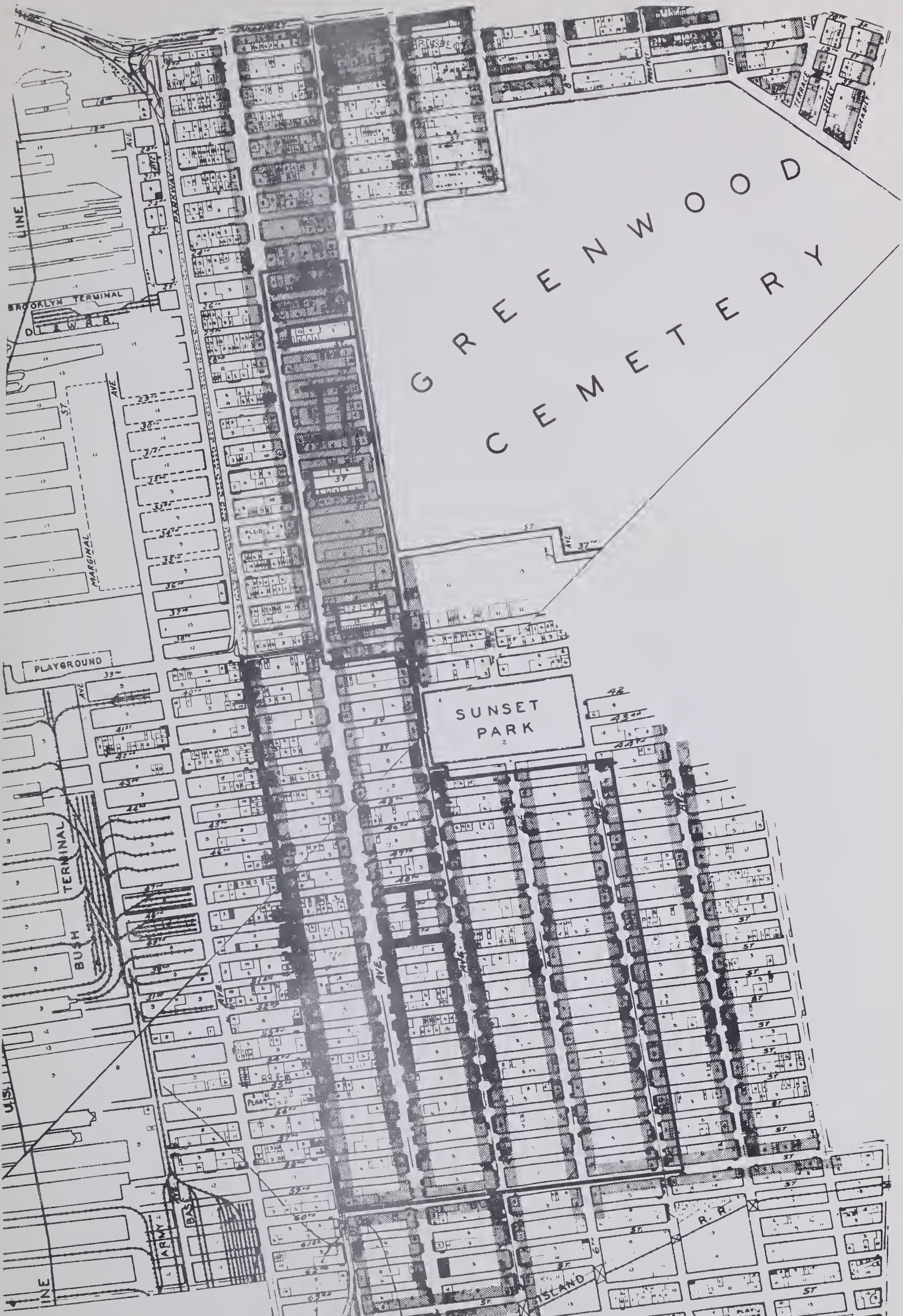
TABLE 5. AVERAGE ASSESSMENT PER FRONT FOOT BY USE AND LOCATION, AREA II

	LAND					BUILDINGS				
	Bus. Use	Mixed Use	Res. Use	Vac.	All Uses	Bus. Use	Mixed Use	Res. Use	Vac.	All Uses
Fourth Ave.	$218	$234	$278	$163	$224	$125	$307	$318	$ 3 a/	$268
Fifth Ave.	$121	$184	$113	$231	$167	$ 70	$288	$306	0	$270
Side Streets	$122	$105 b/	$117	$104	$116	$281	$139	$219	$ 1 a/	$224
Whole Area	$153	$206	$128	$145	$143	$205	$289	$232	$ 1 a/	$237

a/ Some vacant land with improvements.
b/ 100 or less feet in frontage.

2) Influencing Factors

In light of the low level of assessments in Area II, it is not surprising that it was included among the areas selected for the City Planning Commission's 1938 Master Plan of Redevelopment Areas. Although the permitted mixture of business and residence seems to contribute to the very low property values on the side streets several other factors should be considered. The area borders on an Unrestricted zone, and since its total average use valuations are roughly the same as those of the section along Third Avenue in Area I also bordering an Unrestricted zone, its low assessed value may be caused by nearby industries and also because one-sixth of the land area is vacant.


GREENWOOD
CEMETERY
SUNSET
PARK
PLAYGROUND
BROOKLYN TERMINAL
D L & W R.R.
BUSH
TERMINAL
MARGINAL
ST.
AVE
PARKWAY
LINE
U.S.
LINE
ARMY
BASE
ISLAND
R.R.
PLAY-
GROUND
VANDERBILT
TERRACE
37TH
38TH
39TH
40TH
41ST
42ND
43RD
44TH